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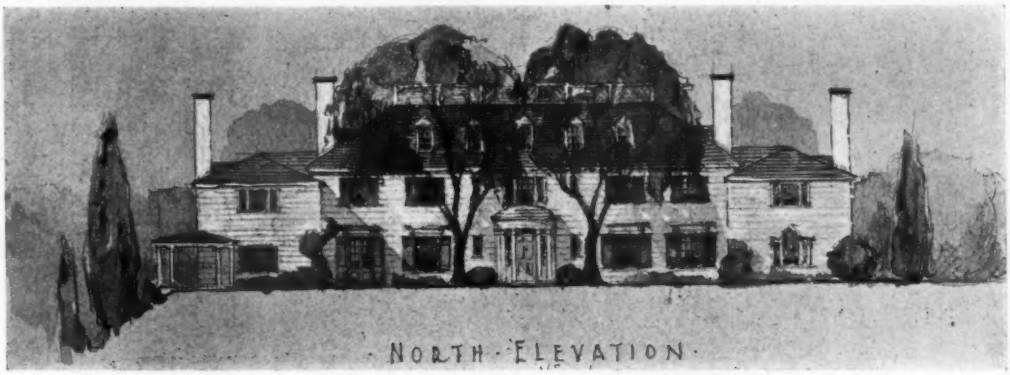

PROPOSED HOUSE FOR JAMES H. PERKINS, GREENWICH, CONN.

Office Sketches to Promote Business

Illustrated by Sketches by ALFRED HOPKINS, *Architect*

UNTIL comparatively recently, the ethics of architectural practice arbitrarily forbade that architects advertise or take any of those methods of publicity that in commercial fields and some professional ones are considered as legitimate and proper means of earning a livelihood. It has been commented on that so small a proportion of architects have paid income tax as to make the number insignificant. The average of income in the profession of architecture certainly does not favorably compare with other professions, yet architects must live and they must present a "front" compatible with that of other professional men, and in keeping with the very high ideals that must govern their work.

The same amount of diplomacy that has enabled architects to pursue the evasive client and secure the commission and not infringe upon the ethics of his profession as put forth by men who have arrived and seem to have forgotten their own early struggles, would if placed at the disposal of our Department of State, very greatly raise the efficiency of our consular and diplomatic service. It is now conceded by thoughtful men that architecture, at all times the greatest of the arts, has to-day become in the most pronounced way, a business.

Any business conducted along lines of artistic organization stands small chance in the open competitive field of to-day. Architects must therefore, if they are to get a proper remuneration for their work or get sufficient work to be moderately satisfactory in remuneration, regard in a practical way the business-securing things that lead toward commissions.

Every architect knows that in the field of domestic architecture the prospective client must be stimulated to a point of interest that will arouse a somewhat lethargic intention to build "some day" into a very acute activity that will urge him to build now. A prospective client having been located, his probable location discovered and the extent of his spending power determined, the architect sets about the preparation of a tentative design and plan, made to suit the client's purse and family. Some of the happiest things that architects have done, have had their origin in these tentative sketches or colored drawings.

There is the essence of good salesmanship in such

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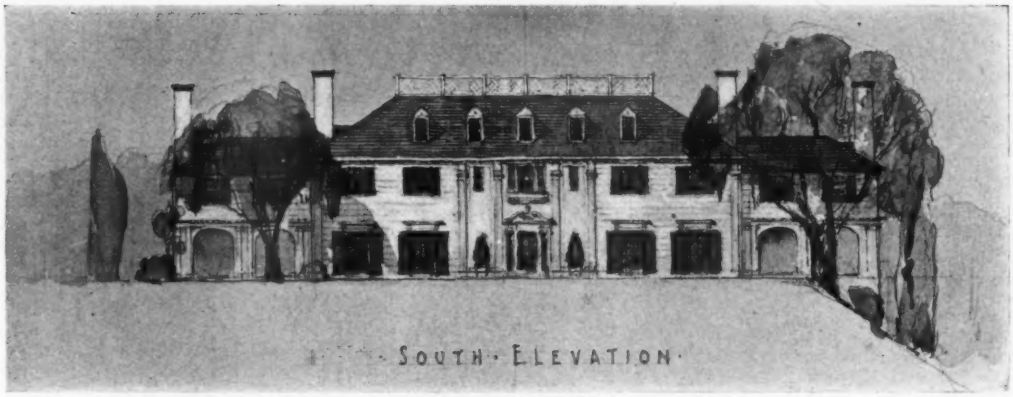
OFFICE SKETCH TO PROMOTE BUSINESS
ALFRED HOPKINS, *ARCHITECT*



PROPOSED HOUSE FOR JAMES H. PERKINS, GREENWICH, CONN.

work. First discovering an inclination, then providing a tantalizing suggestion to be followed by a closing of a deal that will make both the architect and his new client happy. Undoubtedly the suggestiveness of these designs, their elaboration of detail, their suggestion of planting and garden surroundings will represent an aggregate of cost larger than the present client can consider. But he has before him what would be the desired culmination of a long indulged "day dream," a castle perhaps not in Spain, but nearly as visionary. There is at once secured an ideal, something to work for, something to practice self-denial and for which to exercise correct habits of thrift. In this very considerable education of people, the profession of architecture plays a most important part.

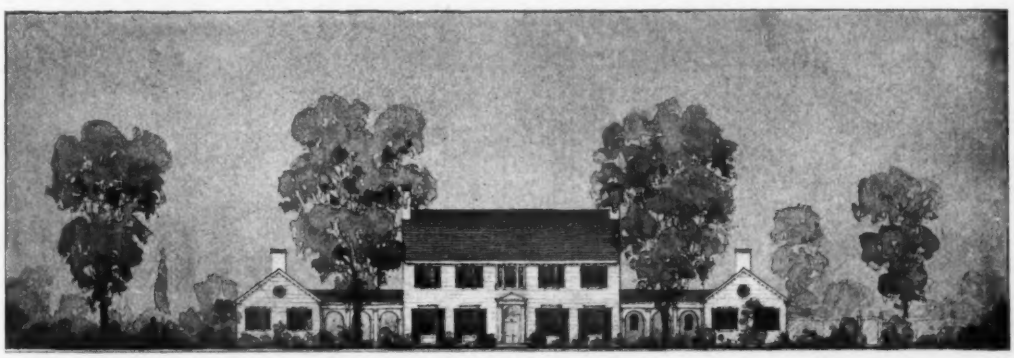
To illustrate in a certain sense the idea we have been attempting to express, we are fortunate in having secured from Mr. Alfred Hopkins, architect, a series of office sketches, and while these drawings were not made to "promote" a project we would like to point out how effective they might be for such a use. It is correct to state that while none of these sketches have proceeded further than the office stage, it was only by reason of the deterring conditions set up by the war that they have not been.

At the request of the editors, the architect has dictated a series of notes that describe briefly the more important of these sketches. They are in the largest sense educational, particularly to younger men in the profession, and we believe will be read with considerable interest.

Notes by the architect on a series of his office sketches:

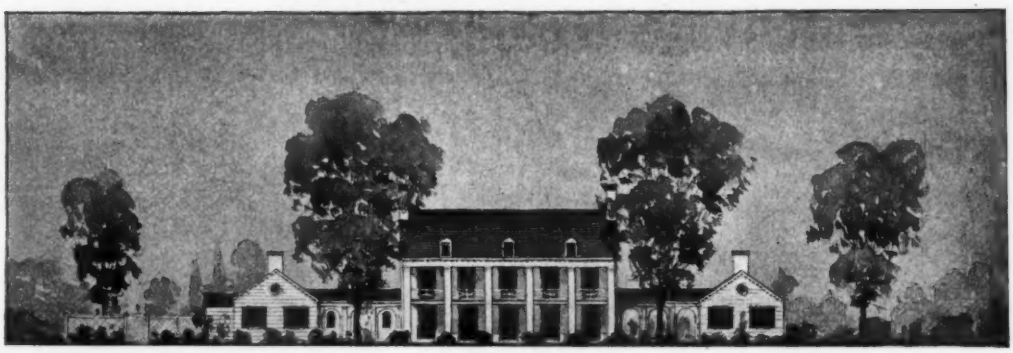
The proposed house for William T. Hyde at Cooperstown was drawn during the war period and is to be built in the near future. It will be constructed of native stone which breaks out in small flat pieces which are admirably suited to the Tudor type of architecture. This type is particularly adapted to American conditions, requires little detail in the way of stone moldings and carvings and when judiciously used gives an unusual architectural expression to the country home.

The principal things to bear in mind in designing



ENTRANCE FRONT
HOUSE FOR GEORGE P. GREENHALGH, TOLEDO, OHIO

FARM BUILDINGS OF GEORGE S. V. BREWSTER, BROOKVILLE, L. I.
ALFRED HOPKINS, *ARCHITECT*



ELEVATION TOWARDS RIVER
HOUSE FOR GEORGE P. GREENHALGH, TOLEDO, OHIO

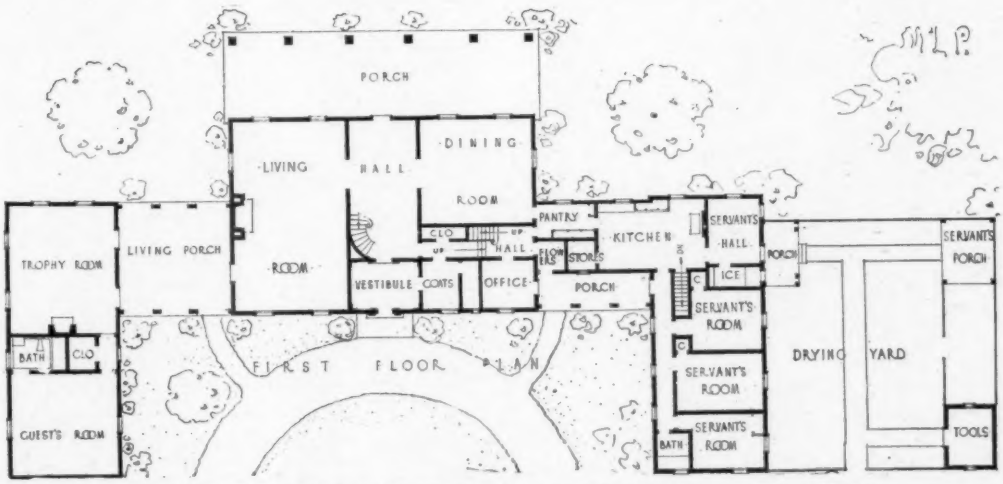
this style, and in fact any other for country building, is the outline of the roof. With an agreeable roof silhouette the rest of the work should be easy Nothing therefore could be simpler or more natural than the roofing of the Hyde house, which will be of rough slate, with the slate laid but three or four inches to the weather. This laying of slate is an important matter to bear in mind, as many of the old Tudor slates were small, thus giving a more artistic appearance to the roof. The edges of the slate being rough—the more edges that are seen the better the roof will look.

Architectural ornaments have been reduced in this house to the minimum and the effect has been obtained by breaking the building up into various parts. Advantage has been taken of the beautiful bay windows of this style not only for exterior but interior ornament. Nothing can be finer in effect than the lighting which these windows afford to a big room. One feature of the house is the two living porches at each end of the living-room. The owner has four children and one living porch is being especially set apart for them and their friends.

The dining-room will be a spacious room extending through two stories while the living-room will gain in height by being below the floor level of the rest of the house. The house has a fine setting, overlooking a beautiful lake.

The house of James H. Perkins at Greenwich is carried out in the same style as the Hyde house, but in a much smaller building. One of the great advantages of this style is—that it is just as suitable to the small structure as the large. This house also had the advantage of a picturesque site. The thought was to place it at the very edge of a deep gully and near the large oak tree which is indicated in the sketch.

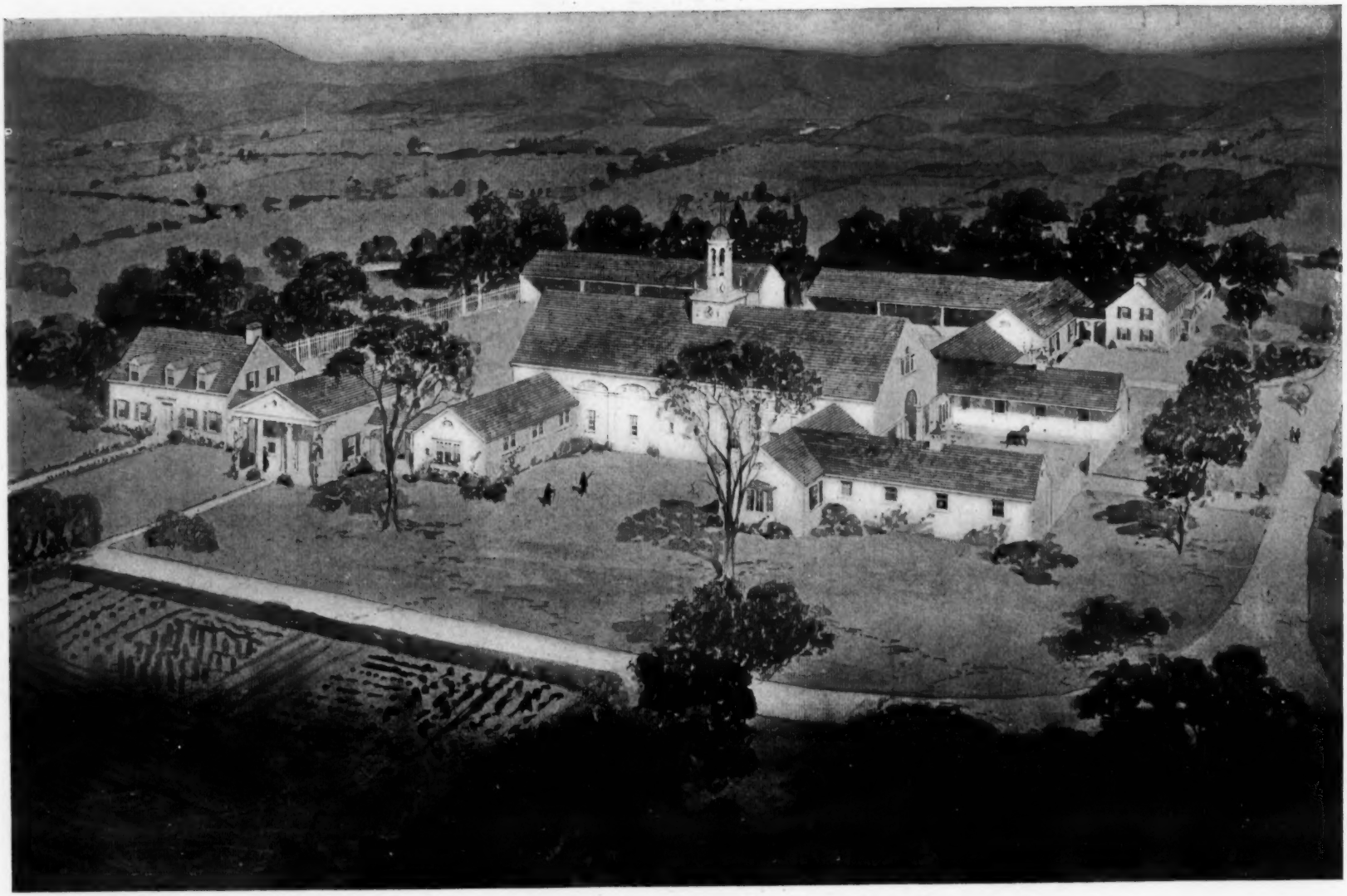
In this plan it was desirable to take advantage of the artistic effect to be gained by not having all



PROPOSED HOUSE FOR GEORGE P. GREENHALGH, TOLEDO, OHIO

FARM BUILDINGS OF GEORGE S. V. BREWSTER, BROOKVILLE, L. I.
ALFRED HOPKINS, *ARCHITECT*

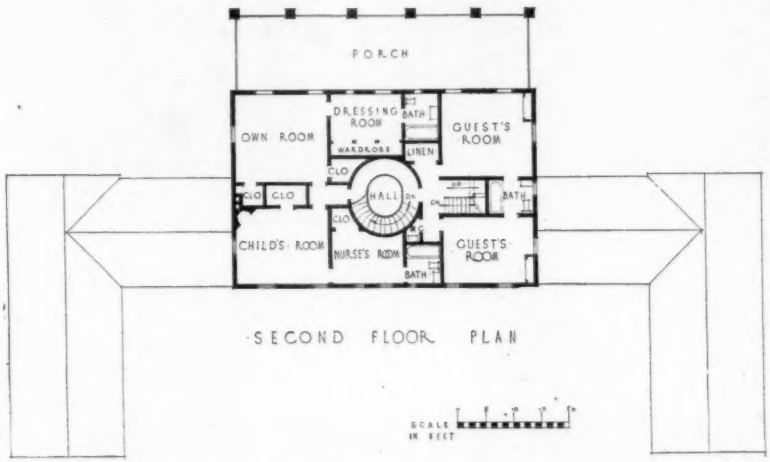
XUM



SKETCH OF FARM BUILDINGS FOR HOWARD BROKAW, BROOKVILLE, L. I.
ALFRED HOPKINS, *ARCHITECT*

the angles right angles. The Tudor style is very much enhanced in its effect by this sort of treatment. Any change in straight lines is an advantage. The T square and triangle methods of design are not suited to the Tudor.

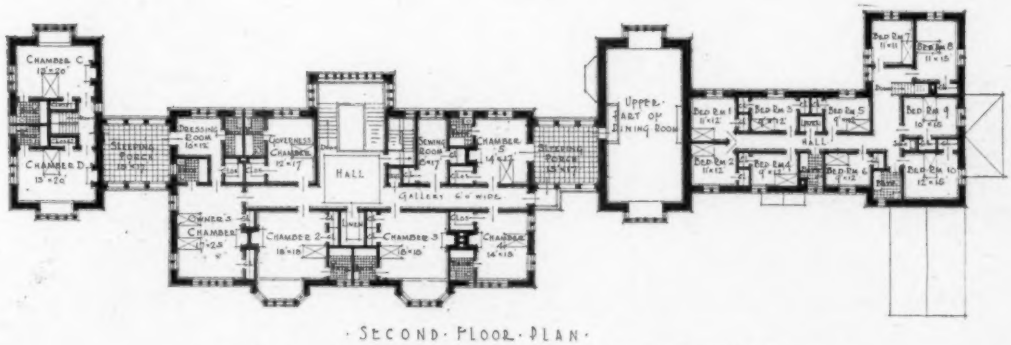
An interesting feature of the Perkins plan is the location of the great rooms by themselves entered from the living porch. The guest rooms have a pleasant outlook on the garden. This is an always attractive feature and is a useful way to dispose of the guest rooms. Our modern requirements as a rule demand more room on the second floor than on the first. For some time it has been usual to make the first floor larger than is required or desired simply to give space above for additional bedrooms. By putting these rooms in a one-story wing greatly adds to the effectiveness of the building and makes particularly agreeable guest rooms. The owner was anxious to see an alternative sketch for a Colonial house for the same location, so such a scheme was made which is more conventional and less attractive.



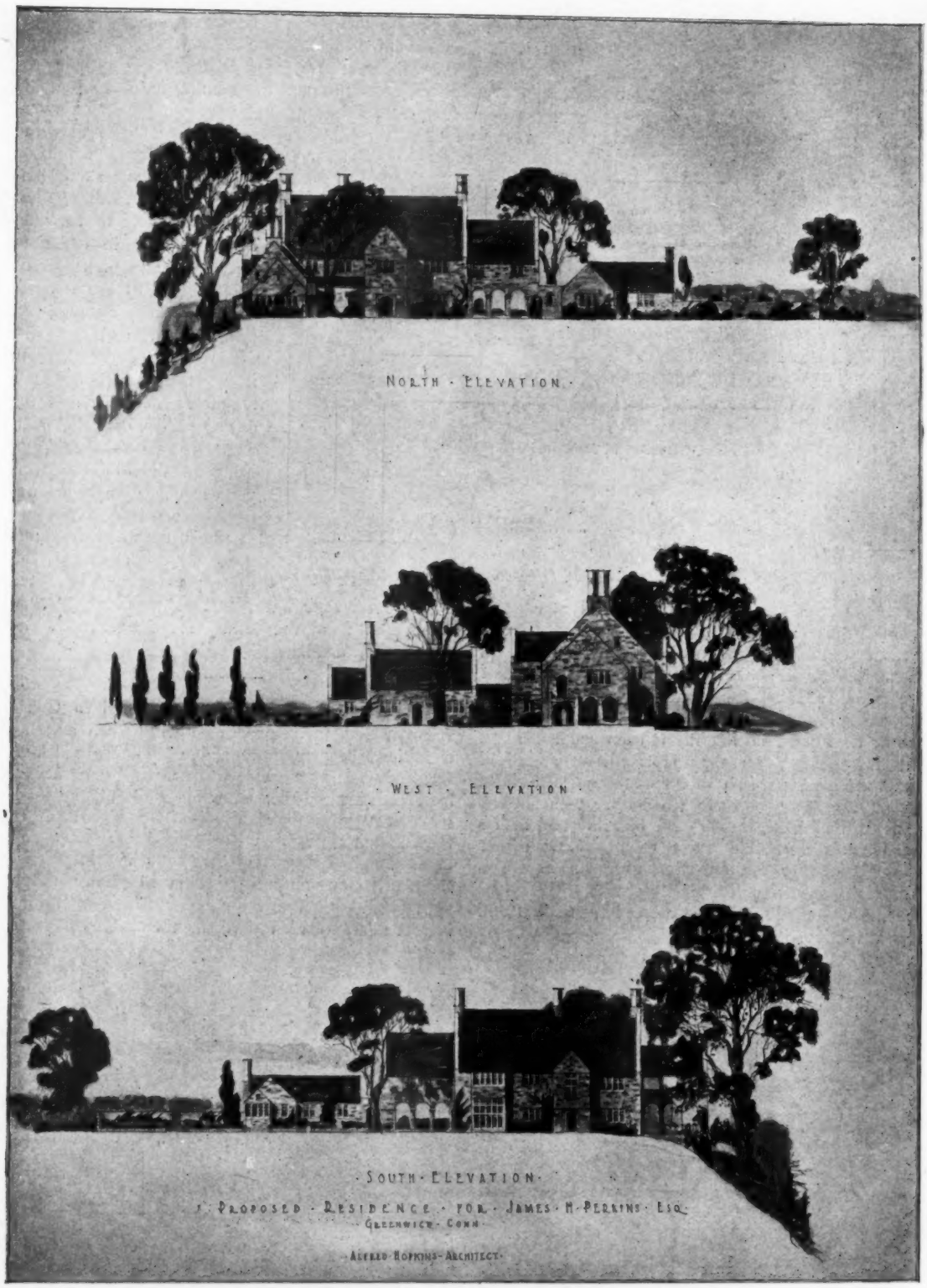
PROPOSED HOUSE FOR GEORGE P. GREENHALGH, TOLEDO, OHIO

The residence for Geo. B. Greenhalgh at Perrysville, Ohio, is a project in the same style, but a somewhat different plan. The central hallway was introduced so as to get the advantage of all outside rooms. This house has a pleasing location overlooking the Maumee River. The colonnade on the front provides a porch on the second story as well as on the first. Advantage has been taken here of the one-story building in order to throw out and make prominent the central mass. A trophy room and an extra guest room occupies one wing, with the servant's room in the other wing. The owner stipulated that he wanted the drying yard where the wash would not be on view when hung to dry, so that this yard has been made of unusual size with a tool house in one corner and a servant's porch at the other. In all these plans it will be noted that the servants have been as much as possible segregated from the family for the comfort and satisfaction of all.

The plan of the large house at Guinea Chase Farm is also to be proceeded with when building conditions become more stable. The special features of this house are the grouping of some bachelor rooms around the swimming pool and the small winter cottage to the right, with its own garden. In the summer time this is to be used as a guest cottage. A very delightful arrangement. Otherwise the plan follows out a usual scheme except, perhaps, as to location, the natural contours of the site allowing for a large sunken garden some twelve or fifteen



PROPOSED HOUSE FOR W. T. HYDE, COOPERSTOWN, N. Y.


NORTH · ELEVATION ·
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· ALFRED HOPKINS · ARCHITECT ·

OFFICE SKETCHES TO PROMOTE BUSINESS
ALFRED HOPKINS, *ARCHITECT*

feet below the main terrace. The building is to be built of brick and limestone along the simple lines indicated.

The owner, however, thinking this may prove too expensive, wanted to see a design carried out in wood, so the alternative sketches showing a Colonial house with shingle walls and wood trim were made.

The Labor Party on Housing

THERE has always been a shortage in the supply of suitable houses for workingmen, says a report of the special problems committee of the New York State Labor party. Therefore relief measures must not only go beyond such feeble attempts to curb rent profiteering as were made by the New York Legislature in its recent session—they must go beyond the present emergency entirely. The fundamental difficulty, according to the report, is that investments in wage-earners' houses have never been as profitable as investments in expensive apartment houses and office buildings. Remedies designed to touch this central difficulty are proposed in a housing platform which has been adopted by the Labor party. Some of the suggestions may be summarized as follows:

State credit should be extended on a large scale to aid in the construction of moderate priced houses through the sale of state housing bonds carrying a low interest charge. These bonds could be bought by banks and insurance companies as legal investments. Thus the savings of working class people, accumulated by savings banks and insurance companies, would be applied to working class housing, instead of being used as they are now for more profitable building ventures which do not benefit the workers.

The granting of state credit should be administered by a state housing board and local boards in cities. On these boards there should be representatives of the organized workers, both in general and in the building trades, and actual working class tenants.

The state, cities and towns should be enabled to go into the business of building, owning and renting houses. This competition would break the "extortionate hold" of manufacturers of building materials on the market.

Cities should take by right of eminent domain outlying land in the line of probable housing development, so that the unearned increment would go to the community.

Non-profit making corporations of actual building workers, including architects, construction engineers and manual workers, should be organized to carry on building operations as a public service, under the direction of the housing boards.

The program has the merit of flexibility; it holds out the possibility of different plans being worked out in different places and at different times. The final suggestion, which evidently has its inspiration in the Manchester building guild, seems to be the ultimate development which is hoped for. "This type of autonomous industrial development is to be preferred," it is stated, "because in this way, with the motive of public service, the actual hand and brain workers can be brought to a maximum cooperation and effectiveness in producing units."

House Shortage in Marseille

The housing problem in Marseille is becoming more serious every day. Although there has been during the war an increase of at least 200,000 in the population of the city, which has now 800,000 inhabitants, only a few new buildings were erected during the last six years. Rents have also been increased by 300 to 400 per cent., and in many cases the percentage of increase is much higher.

A colonial exhibition is to be held in Marseille in the summer of 1922, which will probably aggravate the housing crisis, unless steps are soon taken to provide lodging accommodations for the visitors. There is an abundance of available building sites in the central section of the city, which could be purchased at fairly reasonable prices. The erection of wooden structures on the American pattern, with American materials, was considered, but owing to the exchange situation this idea appears to have been abandoned.

The matter is one which deserves the attention of American architects, builders and financiers. But it will be impossible to achieve any result without personal contact with the local architects and investors. The extension of long-term credits would also be required and provisions made for payment when the rate of exchange is about normal. Unless adequate financial cooperation is assured it will be useless to approach the local contractors and dealers. Definite proposals along these lines should also be submitted. This consulate general would be glad to extend all possible assistance in this connection, but it should be noted that little, if anything, could be achieved through correspondence in this case.

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The Architect's True Relation to His Professional Organization

An Address by F. E. DAVIDSON, *President-Elect Illinois Society of Architects*

A GOOD architect is one who is ever willing to give of his time, experience and worldly goods to the advancement of his profession, and who is so interested in the work of his professional society that he is not only a regular attendant at its meetings, but has thrown away his hammer and bought a horn.

In this age of organizations we will not secure very much recognition, nor will we amount to very much to society if the light of our organization is hidden under the bushel of indifference. Our problem is not so much what the Society can do for our individual members, but, what can our members do for the Society, and through the Society, for the profession as a whole, and for society in general.

Dr. Ebersoll, at the recent convention of the American Institute of Architects, at Washington, wrote the following specification of what a profession should stand for:

First—Service to Society. Second—Service to the individual client. Third—Service to the professional society; and, Fourth—Adequate remuneration to the individual supplying that service.

As members of the Illinois Society of Architects, how nearly do we comply with this specification?

Committees of the Society have placed their services at the disposal of our state and municipal authorities, and these services have been gratefully accepted. The influence of our Society has been felt in the legislative halls of our state, as well as in the council assembly room of many of our cities. During the past year, the Society has broadened the scope of its activities and resulting influences. More, however, needs to be done.

Why should not the Society become active in the political life of our state and its cities? We must play the game of life with the cards we hold, not those in the discard. If the Illinois Society would agree as a body, to support men and measures, friendly to the profession, and would devote to the accomplishment of that object, the same thought, system and energy we all display in handling any of our clients' problems, the influence we would then have, with the aid of contractors, supply dealers, and others requesting favors at our offices, would be at once recognized as one to be reckoned with. If there is any one thing that those in political life recognize, it is the power of organization.

I am also convinced that the Illinois Society of Architects should be the important factor in adjusting differences between contractors and labor organizations. I believe that a federation of all the construction interests of the state should be at once formed. Such a federation, if properly organized and managed, could be all-powerful in the field of construction. The following interests should compose this federation:

First—Architectural societies. Second—Banking interests. Third—Real estate interests. Fourth—Contracting associations. Fifth—The labor organizations themselves.

It is only by the cooperation of all interests that the right solution of the many problems of our business, the business of constructing buildings, may be rightly solved. I believe that the officers of the societies of every interest I have mentioned will welcome such cooperation, and that now is the time to perfect such an organization.

THE recent futile and lamentably ineffective attempt made by the Building Construction Employers' Association of Chicago to prevent the twenty-five or more per cent. increase in the rate of wages paid to building mechanics, as well as their attempt to keep peace in the building trades, is proof of this statement. Here is a powerful organization, that finds itself utterly helpless because it has not and cannot secure the support of all interests having to do with buildings. The bankers are absent, the real estate men do nothing, and the committee appointed to represent the architectural profession is mostly conspicuous by its absence. The result:—Organized labor gets everything it asks for and new building construction has practically ceased. But little new work is in sight, a result largely brought about by a most ludicrous lack of cooperative effort.

Notwithstanding the new agreements made with organized labor, as we all know, there have been more strikes and interruptions to work than ever before. At present, there appears to be no method of preventing these unnecessary and ever costly delays to our work—delays that benefit no one except the business agent who is successful in forcing the owner or contractor to "come across."

The next duty of the architect is to his individual client. Our Society, in cooperation with the Illinois Chapter, has recommended to the American Insti-

(*Continued on page* 46)

EDITORIAL

Labor Over-turn

THE Todd Shipyard Corporation, it is stated in the daily press, have begun the distribution to faithful employees of bonus stock of the company. This distribution is in fulfillment of a promise made in 1916 when all those employed by this company were informed that every one loyal for a period of four years and who faithfully worked to help the company make good on its contracts would be suitably rewarded. In all $1,000,000 of shares, now worth $165 each have been distributed among 727 employees.

Commenting on this *The Sun and New York Herald* pertinently comments: "This is fine, but there is another side to the picture," and directs attention to the fact that of an approximate total of 15,000 employees but 727 are entitled to the bonus.

Here is an accurate illustration of the extravagant labor over-turn which characterizes our American industries. Further quoting from *The Sun and New York Herald,* we read: "Investigation would unquestionably reveal the fact that a high proportion of the persons who quit the Todd corporation in four years did so for no adequate reason. Some of these went out for adventure, some of them looked for that ideal shop which is always in the next town, some of them quit through sheer inability to stay long on any job. Many of them were not conscious slackers, though everybody knows it takes time and money to train a man for a job. Altogether the expense and delays to be charged to this class of labor are tremendous."

This corporation has renewed its offer for a further period of four years. Will labor learn a wholesome lesson from this actual illustration of the good results that accrue from "sticking to the job," or will it continue the scramble for higher wages and supposedly better conditions that really are never in the end found to be so satisfactory as patient and persistent effort at a single well-paid job.

New York's Hotels, Old and New

WHAT boots it, now that we have the eighteenth amendment and are debarred from even the mention of varied and sundry seductive concoctions known as cocktails, now prohibited—what boots it to mourn the passing of the hotel where the famous "Manhattan" originated. That which was once a daily habit has long since become a memory. Nor can we make a pilgrimage to the shrine where the man with a gift for invention which found recognition around the world, first developed "the Manhattan."

The passing of our landmarks no longer seriously affects us. We can even read in the daily paper, as we have just done, that the famous Manhattan Hotel on 42d Street and Madison Avenue will soon be replaced by a towering office building. At the same time it is stated that the Commodore Hotel, but only recently completed, is to be doubled in its number of rooms by an addition to be built along Lexington Avenue. Further, the historic old Murray Hill Hotel, a short two blocks from the Commodore, is to be razed and rebuilt to a great height. On its completion there will have been formed the largest hotel group development in the world, with a total of 10,000 rooms.

There are traditions hovering about the early hotels of New York, full of interesting reminiscence to the old New Yorker. The Grand Union, long a popular resort, was directly across the street from where the Commodore now rears its height. Here was housed the famous collection of pictures gathered by Samuel Shaw, part owner and proprietor, and one of New York's foremost art collectors. The walls of the public rooms of this old hostelry were hung with masterpieces of modern art and in each sleeping room, in place of the hideous chromo or duplicated etching that many larger and more popular hotels are wont to inflect on guests, there hung equally important examples of good American art. And there was Simeon Ford, Shaw's partner. No public function was complete without the presence of that brilliant after-dinner speaker. His wit was keen and honest; his stories clean and to the point.

HERE were the "links" of the famous "Forty-second Street Country Club." Here, during the days before the Volstead act, the golfers would "drive off" from the bar at the Grand Union to the

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"nine hole course" that took in the Belmont, Park Avenue, Murray Hill, Knickerbocker, Wallicks, Astor, Ritz-Carlton and Vanderbilt—"holeing out" as a sort of "nineteenth" hole at the Manhattan. And these things are now tradition. The Grand Union is but a memory; the Knickerbocker has closed its doors. The Murray Hill and Manhattan are soon to pass, and this famous and well played course is now no more.

With the completion of the Viaduct continuing Park Avenue to and around the Grand Central Station, and with the many important buildings comprising the Grand Central Group, that section of New York has risen from a somewhat commonplace neighborhood to one of importance and dignity. The construction of the three large buildings now projected will give to this section of the city a very decided interest. The addition of more than 5,000 rooms to New York's hotel capacity will merely fill a present need and not, as it might appear, provide for future growth.

These things would seem to indicate more strongly than ever that the Manhattanite will, in the future, become a hotel dweller, and that the stately private house or many-roomed and very expensive apartment have had their day. To finance these large operations will take vast sums of money and the tendency, therefore, towards the erection of the apartment house with five to eight rooms or more would seem to be lessened. Just where the middle class man of moderate income will be able to find a home on Manhattan Island is not apparent. Real estate agents report that they could rent four times as many of the medium sized apartments as they have available. Meanwhile, owners of houses everywhere in the city are converting them into "race suicide flats," the small two and three room apartments where kitchens or even kitchenettes are unknown and where gas is not introduced so that tenants are prevented from preparing even the simplest of meals, except on the most primitive of electric "griddles."

THE atmosphere of domesticity is changing in New York. We may soon look in vain, south of 110th Street, for a sign of those places which, even though they were apartment houses, contained what were in the truest sense homes. The jaded New Yorker, tired of all the bustle of our commercial activity, sighing for the change that comes with association of wooded areas and country roadsides, may, if he knows his New York, find all these restful places without leaving the limits of Manhattan Island. Most New Yorkers do not know that leaving the West Side subway at 215th Street there is a neighborhood absolutely untouched that stands today just as it did when Hendrik Hudson and his crew rested beneath the famous tulip tree near Spuyten Duyvil creek—now so carefully preserved from vandalism. The searcher for this neighborhood has only to scale the easy heights of Isham Park and wend his way through tree embowered roads along the southern edge of Spuyten Duyvil, finally to emerge through trees of forest growth to the sunlit waters of the Hudson. Not yet has the speculative builder invaded this wondrously beautiful neighborhood. Here the man or woman in search of rest from the nervous activities of the city's daily life, may walk and view from the heights the vast expanse of Van Cortland Park and the Bronx stretching away to the Eastward. It is less than forty minutes from the bustling location of the Hotel Commodore.

One may, on these brilliant summer days visit this section in a matter of two or three hours. He can then vividly compare the New York of today with that of even a hundred years ago. The experience is a novel one and one does not need a motor car to avail of it.

PERHAPS no other city can present as many radical changes in its growth as can that part of Greater New York, located on Manhattan Island. Our early Dutch settlers could not in their wildest visions have foreseen the changes that have occurred in two centuries. The contour of Manhattan Island has caused these things. The extreme length of about twelve miles and width at no place to exceed three miles, with the early location of its business centers at the southern extremity has caused an ebb and flow of daily traffic. This has seriously complicated traffic problems, many of them yet unsolved.

The congregation of specific lines of business exclusively in certain areas and their rapid expansion is a further interesting phase of the growth on Manhattan Island. And now, so rapidly are all these changes occurring that in place of being things that one generation may describe to another, they are matters of less than a year's development. Witness the case with which we first set out to write these lines, the building up of the Grand Central district. From any tall building at 42d Street and Broadway, looking south toward the Pennsylvania Station, note the many skeleton frames soon to become buildings that will house the clothing trade. Here are radical changes that will have matured within but a few months.

Criticism and Comment

The Editors, THE AMERICAN ARCHITECT:

Your Editorial, "A Matter of Competitions," appearing in your issue of June 16th should receive the attention and start some action on the part of architects who enter competitions, the officers of architectural associations and especially upon the part of advisers who prepare programs and conditions of competition.

The instance of an invited competition given in your article, in which the cost to each competitor amounted to double the amount paid "to defray the cost of the competition drawings" indicates that in that particular case the client was unusually generous. So very few people, including professional advisers, realize the amount of unnecessary expense, frequently exceeding a thousand dollars, in stupid mechanical labor, required by conditions calling for drawings at a scale too large for convenient study; for the drawings to be in "India ink and no other color"—when pencil and wash would be much more expressive of the designer's ideas and intentions; for drawings to be made upon sheets which are either unusual sizes for hand made paper or do not allow for trimming after stretching on the boards; for showing the dimensions and areas of rooms in figures on the plans and demanding "the walls and solid supports to be blacked in solid," and the useless requirement, which still occasionally crops up, of "a perspective," which is at its worst when required to be "in line only." Surely all of the above requirements should be eliminated as being of no assistance whatever to any competent judge of architectural design, and as demands for sheer waste of the architects' time and money. In these times, when well-informed draftsmen are not available for temporary assistance, when space for temporary expansion of the architects' offices—in New York at least—is out of the question; and even material, such as good sheets of paper of the larger sizes, suitable for fine renderings, cannot be readily obtained, some thought should be given by advisers to avoid waste labor, and inconvenience in the preparation of the merely tentative drawings which is all that competitive drawings can, or should attempt, to be.

I think that at least the following points should be observed in the preparation of programs:

1. All drawings should be at a uniform scale, except in the case of large sites the block plan might be at a smaller scale.

It would be a convenience if the survey or diagram of the site were provided on white paper at the scale required for the block plan, so that it might be drawn directly on the sheet supplied. In cases when the adviser deems it necessary to define the type of lettering to be used, such sheet should be printed to serve as a model of the type and size of lettering desired.

2. Drawings should be as few in number, and as small in scale as possible to adequately show the general working out of the *parti* adopted, and no more.

Plans and elevations of buildings having a greatest dimension of 200 feet, should be at not more than one-sixteenth inch scale; those of 400 feet, not more than one-thirty-second inch scale, and those of 800 feet at one-sixty-fourth inch scale. A drawing of some feature at one-sixteenth scale in the case of very large buildings would ordinarily be sufficient to show the character of the architecture and quality of detail which the designer proposes.

3. No inked-in drawings should be required, but should not be prohibited. The kind of drawing (the medium) should be left to the competitor, and should be that in which he can best express his ideas.

I contend that the man who can draw should not be held down to the level of the one who cannot, especially as in these times every good designer is a good draughtsman.

4. Lettering, figuring, dimensions and areas, except of the more important rooms, close computations of cubic dimensions and diagrams to show how the cube is arrived at should not be required—in any event not upon the drawings. Rooms could be numbered on the plans and the areas, etc. given in a typewritten schedule in the report.

Such detail does not bear any weight with a judge or jury until all but two or three designs have been eliminated. Therefore it is preposterous to require sometimes as many as one hundred competitors to put in lettering and figuring of unimportant details demanding in each case the time of an expensive draughtsman during a week or more, when the judge can find out for himself in a few minutes by scaling, all that he wishes to know regarding the two or three designs remaining for final consideration. It should be observed that in the working drawings the dimensions of rooms are almost invariably changed from those required in the competition programs.

5. Perspectives should be prohibited.

They are of no assistance to a good judge of design. The architect of such little experience, knowledge or imagination who requires the help of a per-

(*Continued on page* 48)

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The Architect's True Relation

(*Continued from page 42*)

tute of Architects, an amendment to its code of practice, making it the duty of architects to furnish complete services and all for one fee. In order to compete with the builders, and the so-called professional interests who are unable to qualify under the law as architects, yet who have by the weight of organized numbers, been able to secure legislation that legally qualifies them to plan buildings, and who are now competing with our profession for work; architects must give, not only complete service, but a quality of service that can be given by no one else. Our training and experience has qualified us to give that quality of service; and when architects as a profession, give to their clients this super-service, owners will soon learn that it always pays to employ an architect. An architect has something to give as well as something to sell, not possessed by any one else.

Regarding the third paragraph of Dr. Ebersoll's specification—Service to the professional Society—For some reasons our members have not supported the Society as loyally as I believe they should. There has been evidenced on the part of some a general feeling of indifference.

The Illinois Society of Architects is not a kindergarten. It is not conducting a soup kitchen. It is organized to perform a definite service to society and to its members, and any man unwilling to do his share should not remain a member. We want with us every architect who is willing to do his bit, but there is no room in our ranks for the parasite, the mere hanger-on, who only joins for what he may secure in prestige. Every member of the Society should and must evidence the utmost loyalty to the Society and show as commendable a willingness to work for the common good as that shown by your officers and directors. It is not enough that you elect some of your members to office. Your officers must have the loyal cooperation of our members. You are or should be just as much interested in the Society as they are. If you are willing to work as a member of any committee, advise your president of your desires. If you think of some way to extend the Society's influence, and thus increase your own standing as an individual, let your officers know about it. Make the Society your own society. You can do it and we will all be benefitted.

IF we may rightly read the signs of the times, you will for some time have plenty of opportunity to think and study professional and society matters. As Mr. Dunning so ably stated in the report of the Post-War Committee on Architectural Practice to the 53rd Annual Convention of the American Institute of Architects, "The Committee is regrettably led to the conclusion that architects do not actively interest themselves in the problems concerning their profession, except in times of depression. Then they turn to the organization for help and suggestions with which they may meet the problems incident to depression, only to find that they themselves have neglected to help their own organization in the task of preparing for just such emergencies."

The next paragraph of Dr. Ebersoll's specification demands adequate remuneration for individual service. Perhaps no profession is less adequately paid for services rendered than architects. No profession assumes a greater responsibility or renders a greater service to society or the individual client. It has been estimated that the net average income of the architects of Illinois is less than the average net income of members of the Chicago Building Trades Council, and this, notwithstanding the many years of study required for the necessary education and training in order to qualify as an architect. The financial return even to the most successful in the profession is not commensurate with the time spent in preparing for the profession and for the service rendered. The same preparation, the same concentration of purpose, the same consecration of every energy of mind and heart in commercial fields of endeavor would make millionaires of us all.

A change in the system of payment for architectural service is now being considered seriously by the profession as a whole, and we may predict that at the next Annual Convention of the Institute, definite recommendations will be made which will at least increase the recognized minimum fee for architectural service, if said fee is to be based on a percentage of the cost of work.

I would add a fifth paragraph to the specification for a profession. I would add, Service to the Individual member by the Professional Society.

If we will compare the service rendered to the individual by the society in the learned professions, we will find I am sure, that as architects, we do not compare very favorably with the professions of law or medicine. Who ever heard of a doctor testifying on the witness stand in a Court of Record, against the charge of a brother physician, yet how often we observe architects using their testimony to defeat the righteous cause of a brother architect. Who ever heard of a doctor belittling the skill and professionalism of a brother physician? In the mad scramble for jobs that now seems the rule, is this primary and fundamental rule of conduct always observed by us? Let any of my hearers who has not sinned, raise his voice in protest. Remember that your clients and the public will never

place a higher valuation on your own services than you yourselves do, and will judge you as much by what you say as by what you do.

One of the first things I propose to do as your president, if you and our board of directors will approve, is to appoint a strong committee on "legal service." The specific duty of this committee will be to advise any of our members who may wish assistance, as to the proper procedure to be followed in collecting their just fees. The most experienced of us may find that he has a crook for a client and quite frequently, the younger practitioner finds that either he failed to secure a legal contract for services, or finds that he can only secure payment for services rendered by a suit at law, and is confronted with the problem as to how to proceed. Our committee will be able to suggest proper procedure and may even with propriety, suggest the names of legal counsellors that they know to be all that an attorney should be.

The second duty of this committee will be to investigate and report to the board of directors for action on those cases where architects appear as expert witnesses against another architect.

I shall also insist that the membership committee I shall appoint endeavors to secure the application for membership of the younger men—all those just entering practice. It is to these we may look with certainty as the coming men who shall take up the work we shall ultimately be compelled to relinquish. We should take them in and inspire them to give our work the spirit of loyal devotion that animates most of us.

Since the beginning of the Great War there have been many changes as affecting the practice of architecture. It was an Art, or a Business. I believe it was, and is, both an Art and a Business, that while we are at all times artists, we are at the same time, Master Builders, whose duties, as the result of modern commercial methods, bring us so intimately into association with every commercial detail, that to conserve the best interests of our clients, we must needs be equipped with more business acumen than is necessary in any of the arts allied to ours. Any architect who fails to recognize this rapidly growing condition, will find scant recognition for ability when he comes in contact with that hard-fisted client who, while perhaps willing to give a grudging assent to the introduction of certain features of our art in his building, is more anxious to learn its true rental return.

The success of our Society, devoting its activities largely to the business problems of the profession, is proof of the importance of the business aspect of the profession.

IN conclusion, let me say a word about our Society as a National influence. It is a source of satisfaction to me, as I know it must be to you, to know that wherever and whenever state societies are discussed, the Illinois Society of Architects is held up as the best example of an efficient working organization. We have it, therefore, as a duty, to maintain this reputation and secure for our membership the largest proportion of eligible men it is possible to obtain. In this effort, I am hopeful of your earnest and loyal cooperation. We may not set a limit on our activities, but I hope we may so organize our activities that they will draw to us a membership that will make the Illinois Society of Architects so powerful a factor in organized architecture that it will be something to reckon with—a power in itself.

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Criticism and Comment

(Continued from page 45)

spective in order to judge of the appearance of the design, is unfit to be a judge, or to act as adviser of a competition.

6. The size of sheet should be an ordinary Whatman paper size, less two inches in each dimension to permit stretching, cutting from the board and trimming. Borders to sheets should be left to the judgment of competitors.

While the above points are but a few of many improvements that might be made to the sort of program that is approved by—or gets by—the American Institute of Architects' censors, they represent fifty per cent of the cost of the ordinary set of competition drawings to each competitor. Observance of those points would allow more time the designer for the important thing—the study. It would result in more and better designs being submitted in competitions by the older men to whom time is the matter of importance, and afford the usually intended opportunity to the younger individual, who believes in his own talent, to try his skill without being obliged to require assistance beyond his means.

FRANCIS S. SWALES.

New York.

Freight Situation Continues to Halt Building

In an effort to break the embargo on building materials, Senator William M. Calder of New York, chairman of the Senate Special Committee on Reconstruction and Production, sent the following telegram recently to the Interstate Commerce Commission:

"There is now before your body an application filed by the sand and gravel interests requesting permission for the building industry to appear before your Commission and present facts concerning the serious conditions now confronting the building industry of the country as a result of recent car service orders, which amount to an embargo on the transportation of building materials. As chairman of the Senate Special Committee on Reconstruction and Production, I respectfully request that all branches of the building industry be given an opportunity to present to your Commission facts as to the inevitable results of a continuance in operation of the recent car service orders. Preliminary investigation made by experts of Senate committee is developing the fact that the country is in a critical condition because of lack of housing and general construction."

Senator Calder has also conferred with several of the leading railroad executives, drawing their attention to the importance of immediate transportation of building materials to New York City, where construction must be started during the next two or three months if relief is to be expected this year.

Senator Calder pointed out that the building shortage is so acute in New York City that the movement of building materials should take precedence over all shipments, excepting food and fuel.

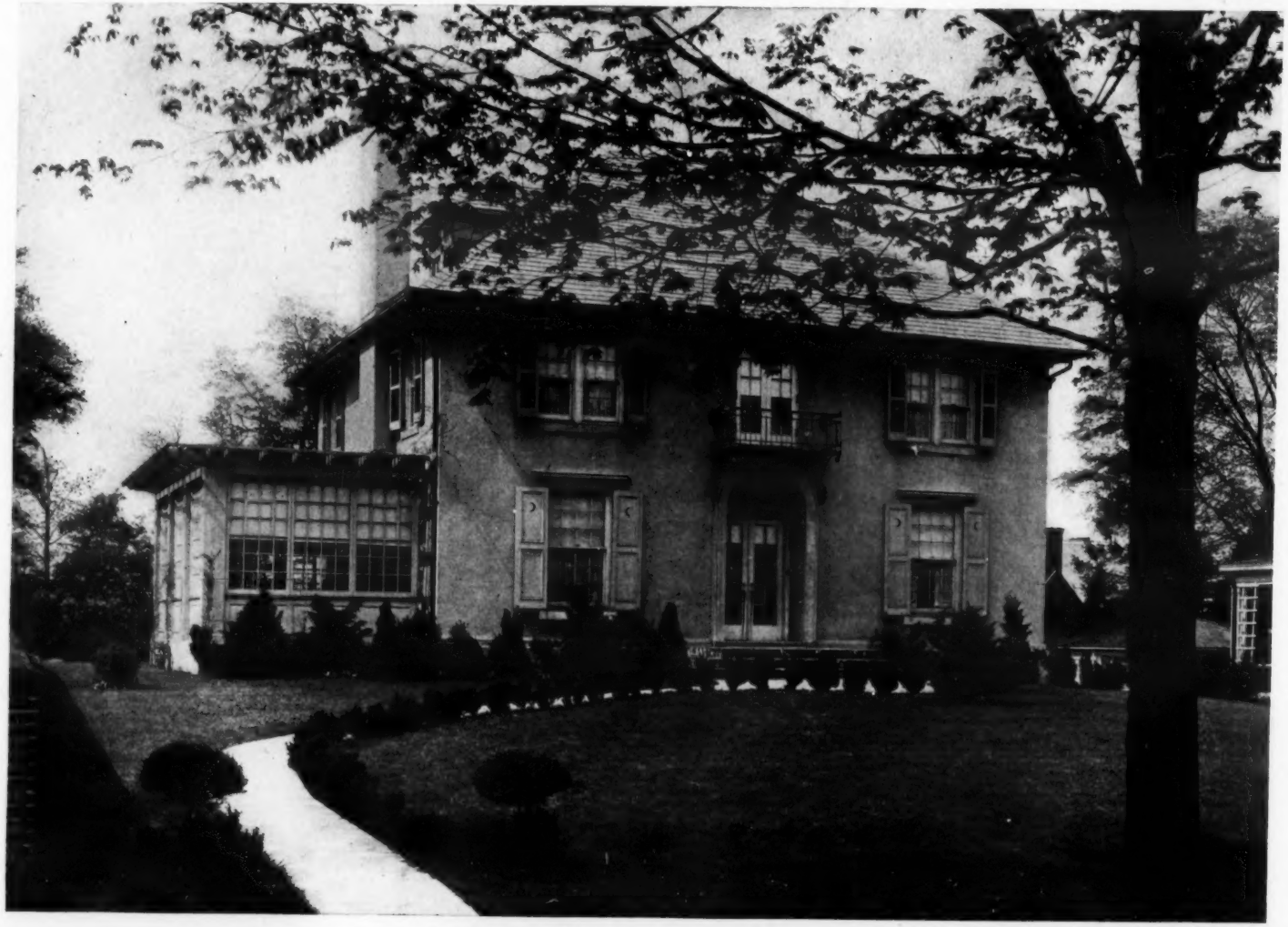
Senator Calder explained that at a meeting of the leading building material manufacturers of the country last Friday evening at the Engineers' Club it was developed that there is in existence today at the several plants sufficient building materials to meet all present requirements of the industry, but that the need of additional cars to move those materials to the places of consumption had cut down the shipments about 66 2-3 per cent.

Jefferson's Home for National Memorial

Monticello, the home of Thomas Jefferson, at Charlottesville, Va., which has been sought as a national memorial by public-spirited citizens organized to purchase the historic property from its owner, Jefferson M. Levy, may be bought soon by the Thomas Jefferson Memorial, of which James W. Gerard, former Ambassador to Germany, is president, according to Charles W. Swan, secretary of the organization.

The estate, comprising nearly 700 acres, has been offered by Mr. Levy for $1,000,000, on condition that it be converted into a national memorial.

The restoration of Thomas Jefferson's home has been completed in the smallest detail by the present owner, whose family came into possession of it in 1820. The house has been described as one of the most perfect pieces of Colonial architecture in America. The estate has been open to the public, and thousands of persons daily make pilgrimage to the home of the signer of the Declaration of Independence and former President.



HOUSE OF WILLIAM H. CAREY, PASSAIC, N. J.
JOHN F. JACKSON, *ARCHITECT*

DETAIL OF MAIN ENTRANCE

HOUSE OF WILLIAM H. CAREY, PASSAIC, N. J.

JOHN F. JACKSON, *ARCHITECT*

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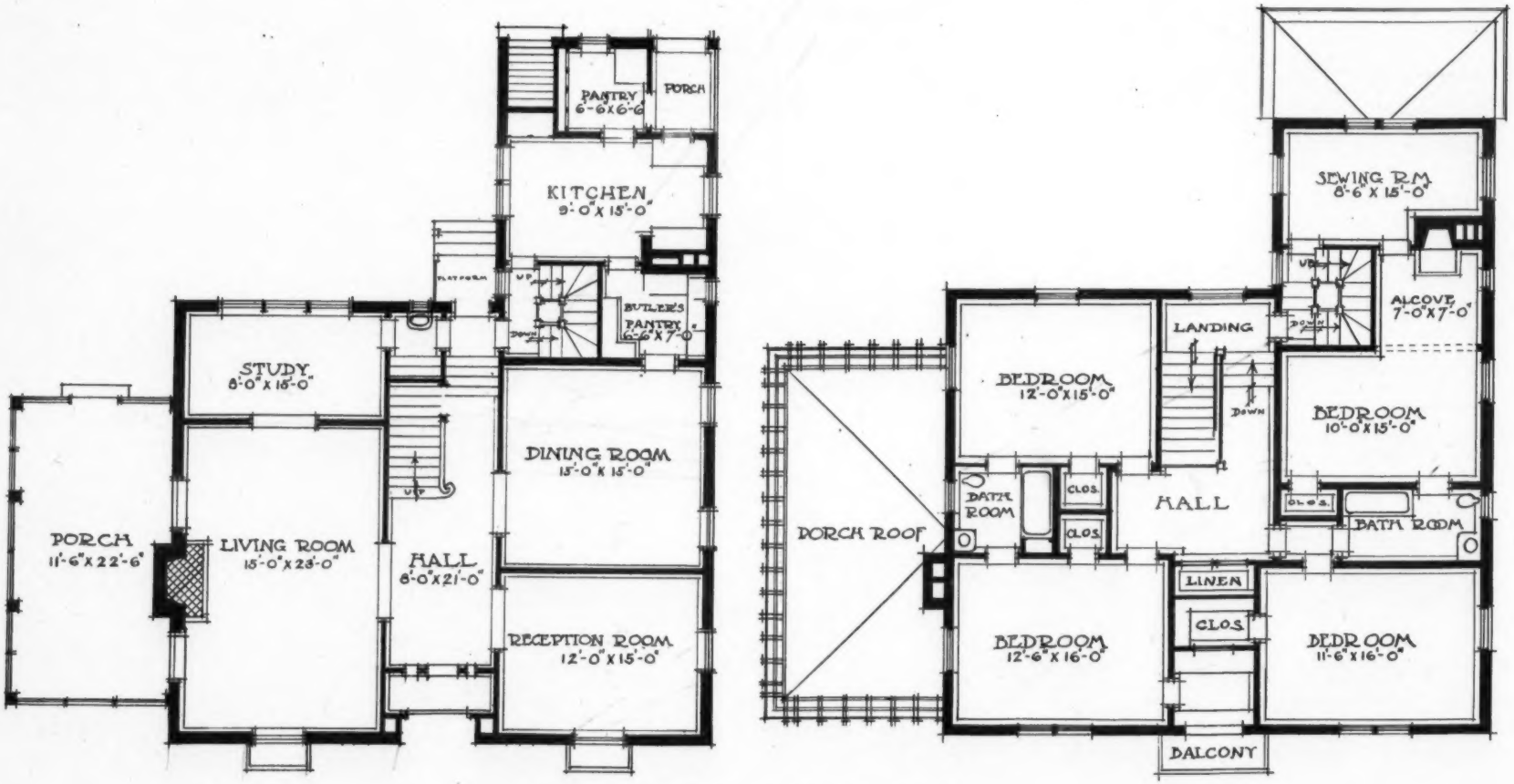
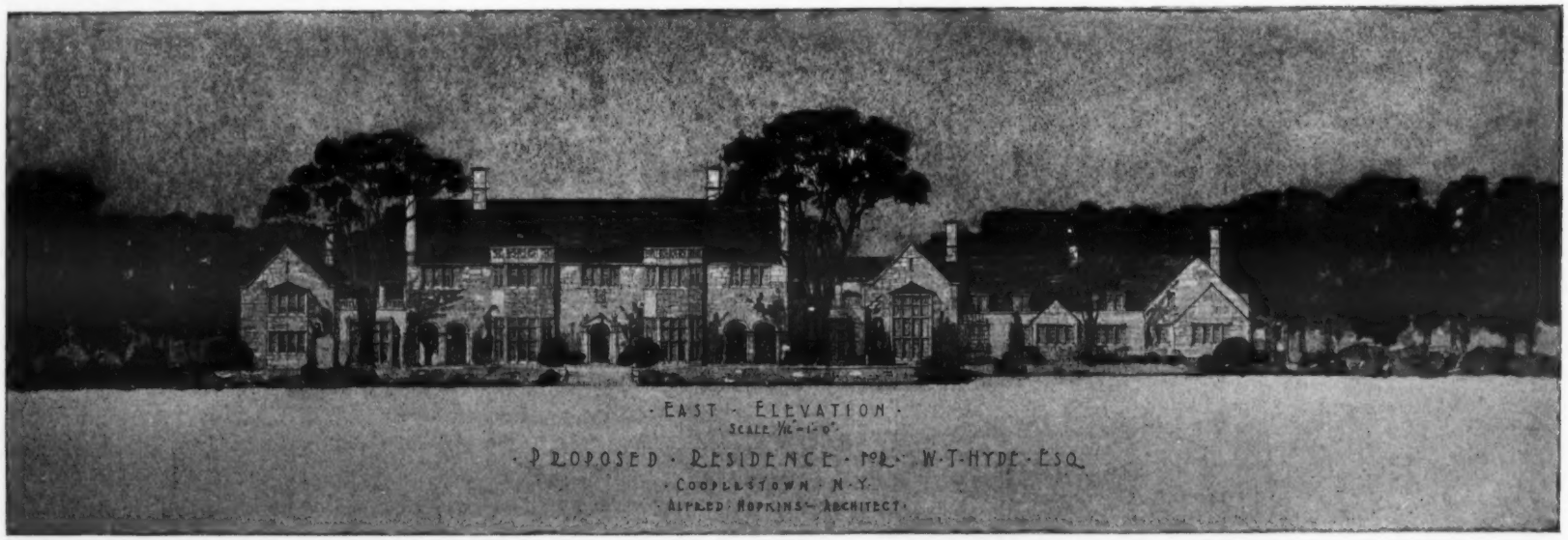
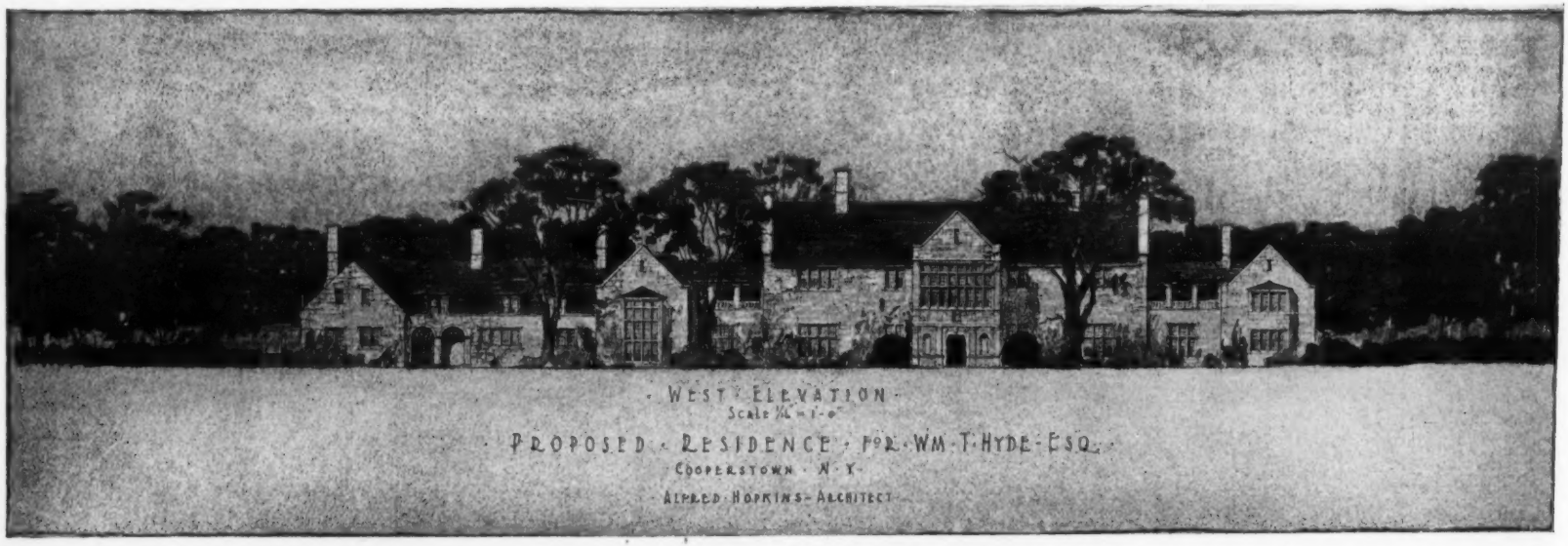
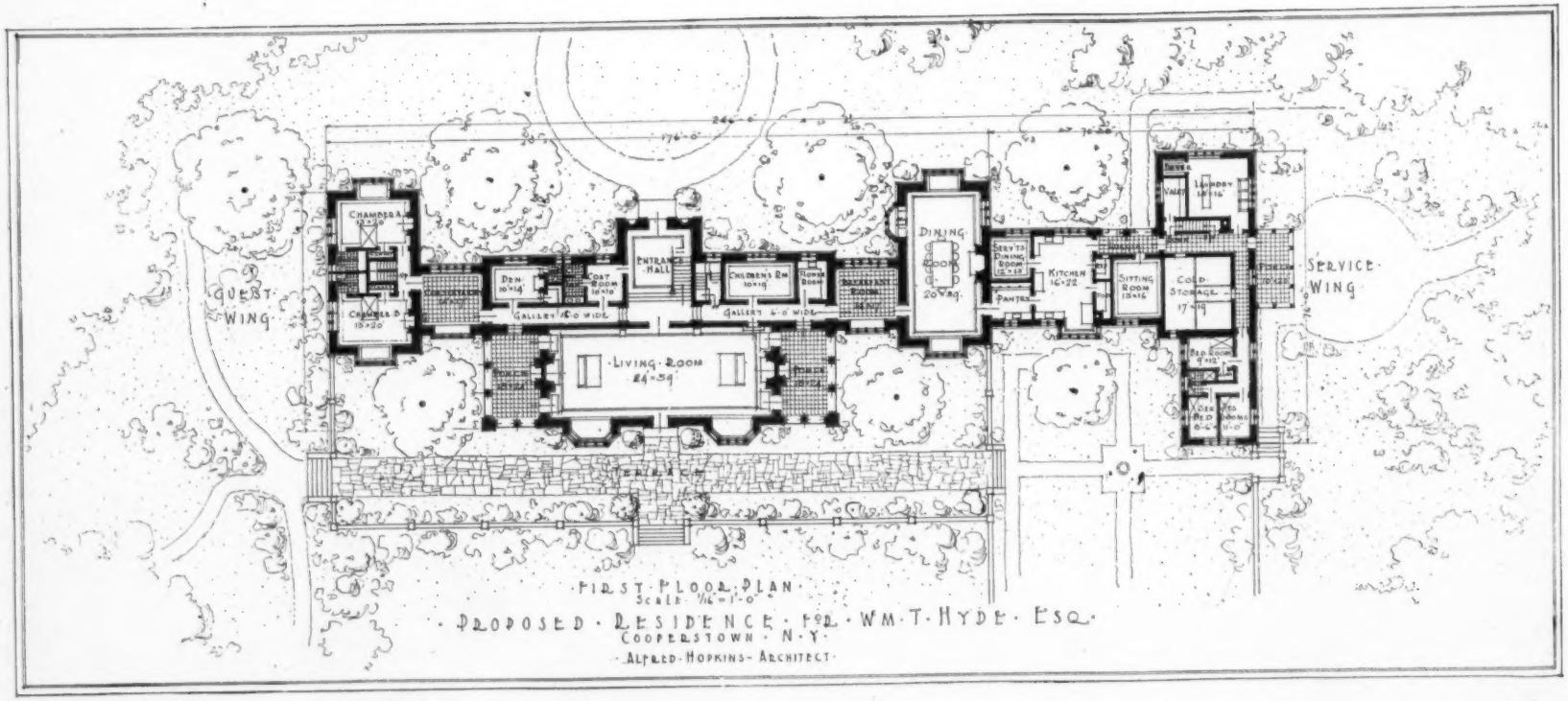


HOUSE OF WILLIAM H. CAREY, PASSAIC, N. J.
JOHN F. JACKSON, *ARCHITECT*





OFFICE SKETCHES TO PROMOTE BUSINESS
ALFRED HOPKINS, *ARCHITECT*



OFFICE SKETCH TO PROMOTE BUSINESS
ALFRED HOPKINS, *ARCHITECT*

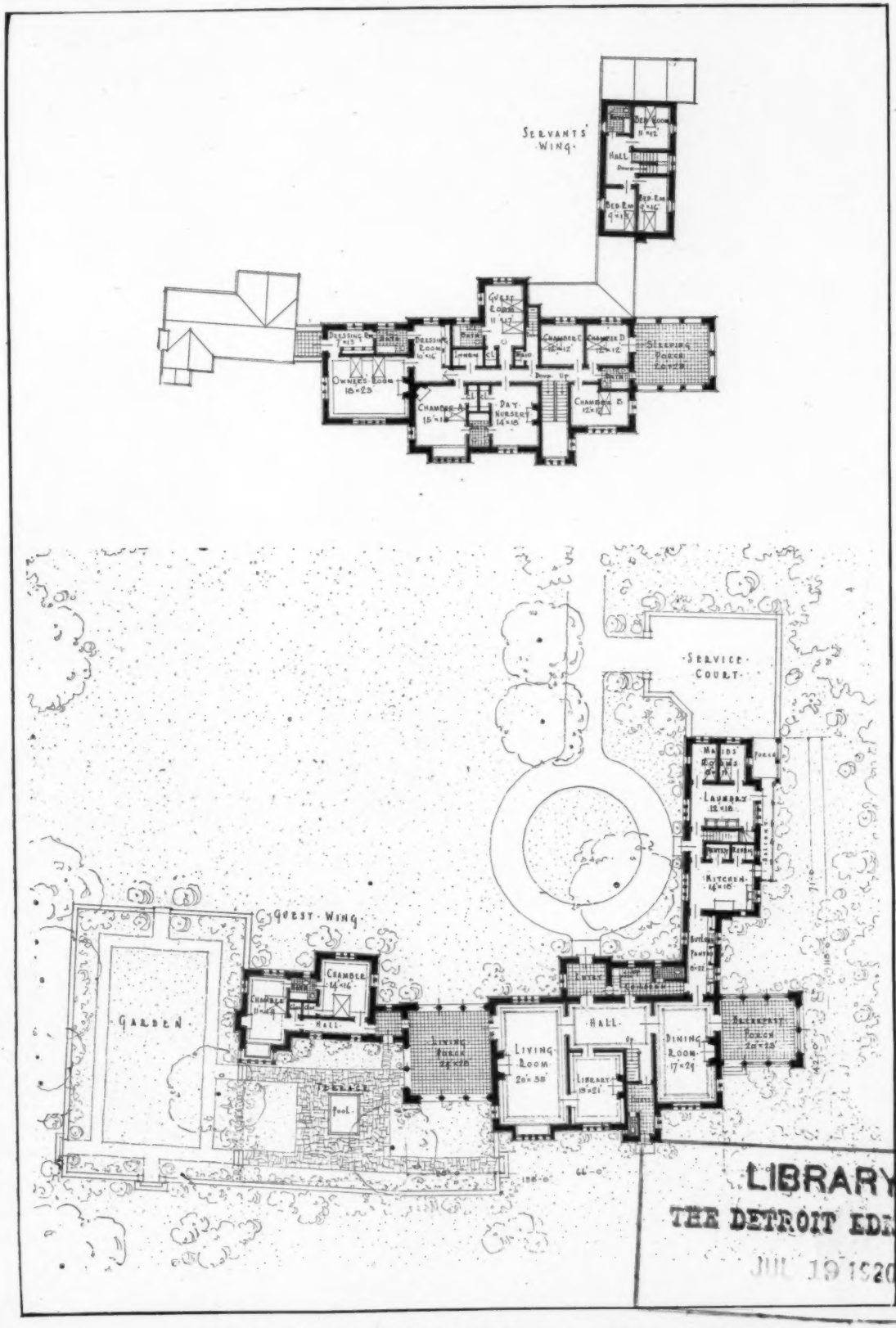
ENTRANCE FRONT

PROPOSED RESIDENCE AT WESTBURY, L. I.

GARDEN FRONT

PROPOSED RESIDENCE AT WESTBURY, L. I.

ALFRED HOPKINS, *ARCHITECT*



LIBRARY
THE DETROIT EDISON CO.
JUL 19 1920

PROPOSED HOUSE FOR JAMES H. PERKINS, GREENWICH, CONN.
ALFRED HOPKINS, *ARCHITECT*
(See page 40 for exterior views)

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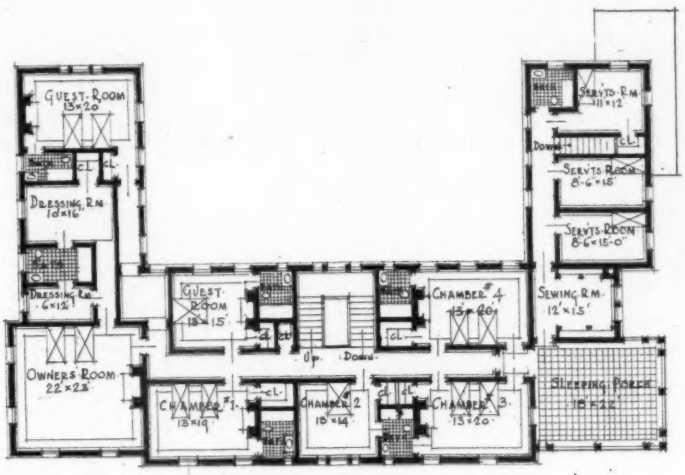
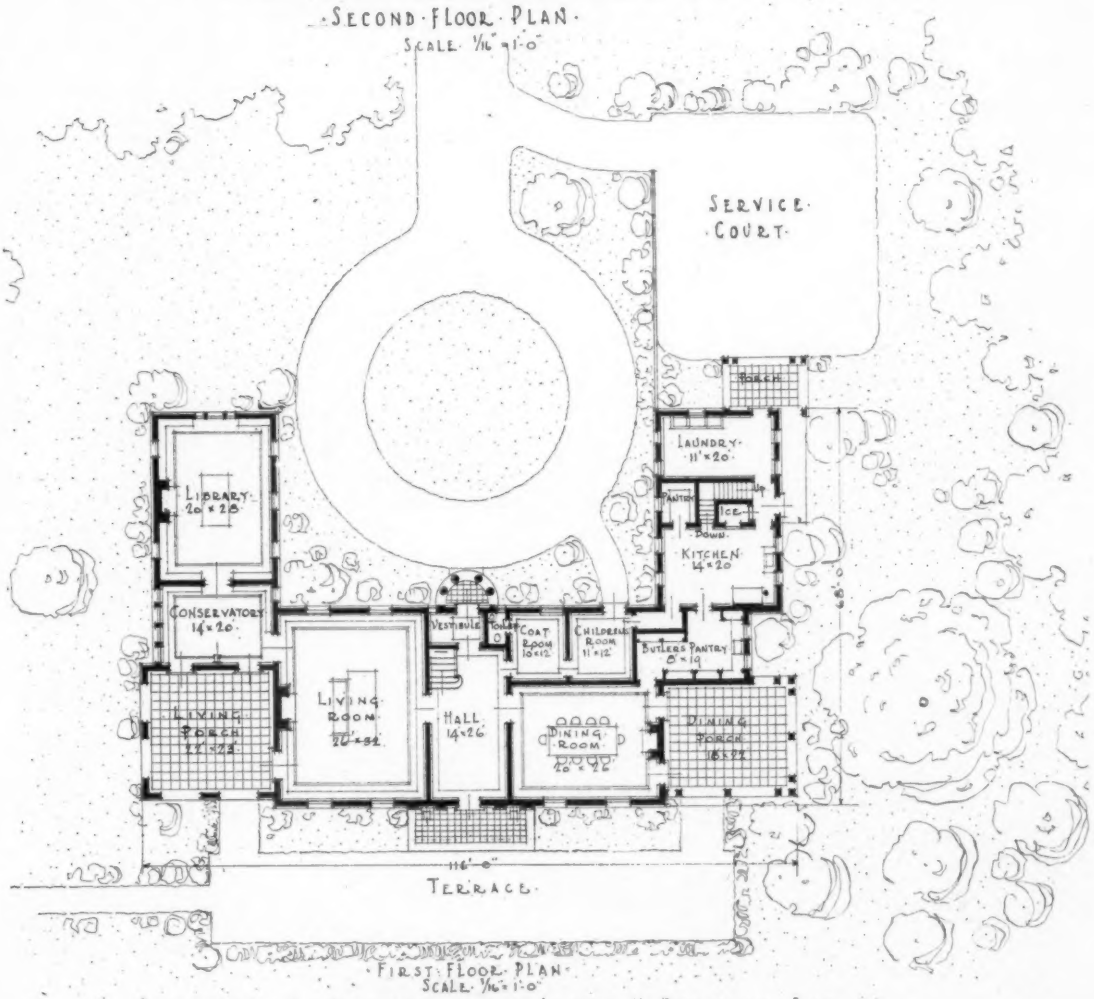


SECOND FLOOR PLAN
SCALE 1/16" = 1'-0"



FIRST FLOOR PLAN
SCALE 1/16" = 1'-0"

PROPOSED RESIDENCE FOR JAMES H. PERKINS ESQ
GREENWICH CONN
MOVIUS & ROTCH
ALFRED HOPKINS ARCH
101 PARK AVE NEW YORK

Current News

Happenings and Comments in the Field of Architecture and the Allied Arts

Designer Enters the Motion Picture Field

The decorations of New York City for the return of the troops from France and the planning of other smaller fetes may be recalled as the work of Mr. Paul Chaflin. We now learn from the newspapers that he is going to California to assist Cecil DeMille in the production of motion pictures. Mr. Chaflin studied art in New York, subsequently at the École des Beaux Arts in Paris and at the Amsterdam Academy in Rome.

With men who are trained in the arts turning their talents to the motion picture field, we may expect to find some worthwhile and carefully planned effects coming along with the evening's amusement.

How One Artist Cleared Away Billboards

The following story was recounted by W. A. Rogers in the New York *Times*, as a word of encouragement to Mr. Pennell. This happened in 1879 in Colorado, at the time of the great Leadville boom:

Tom Parrish of Colorado Springs was in 1879 an etcher, and a very good one. He was also interested in mining properties. Both these lines of endeavor took him about in the mountains and he was greatly distressed when he saw advertising signs, with letters ten and twenty feet high, painted on the great cliffs which formed the mountain sides of that wonderful region.

Tom Parrish was a mining man by stress of circumstances, but he was an artist by nature.

Artists, public opinion to the contrary notwithstanding, are practical people. They deal with the visible world, and the visible world in Colorado was being ruined by a lot of vandals.

Tom Parrish was a popular man in Colorado Springs. He got himself nominated for state senator and won the election.

Then he prepared a bill making it an offence punishable by a fine of $1,000 or one year in jail to deface the scenery in the state of Colorado. This bill also provided that offenders should at their own expense obliterate all signs hitherto painted on the rocks. When his bill was presented and read before the legislature a howl of derision greeted it.

"We are practical men," said the other members of the legislature, "not a lot of fool dreamers. We want business, and advertising makes business. You'd better go back to making pictures and not laws, Parrish."

"All right," said Parrish, "I'll make you a picture right now that maybe you can see. You want business; so do I. What has Colorado got to sell? Silver and scenery! Just those two products—silver to the mints, scenery to the tourists. You haven't another thing today to offer. And the best and surest product you've got you are willing to let a lot of rustlers destroy. There's my picture: what are you going to do about it?"

An old miner got up and banged his fist down on his desk. "Parrish is right. He's got more business in his head than all of us put together. Let's pass his bill!"

They did, the governor signed it and it became the law of the state.

Valuable Building Stone Found

What geologists and experienced quarrymen pronounce to be the most valuable building stone ever found in the United States has been discovered ninety miles south of Memphis, in North Mississippi, along Big Bear Creek. It is said to be the finest Silica stone in America and the only specimen of its kind is found near Edinburgh, Scotland, where most public buildings have been erected of it.

Practically all of the stone lies in a deep gorge, through which flows Big Bear Creek. Acres of it is on top of the ground, formed in such a way that it can be gotten in slabs or blocks of most any size. There is little overburden to any of it.

Dr. L. C. Glenn, geologist at Vanderbilt University, Nashville, who went to the locality and made a report of his findings, said the vein averaged 25 and 30 feet deep and that its bedding is usually remarkably uniform and parallel, so that when split along the bedding planes the blocks have almost perfectly even surfaces.

When the stone is exposed to air it readily hardens, according to Dr. Glenn. It will resist weather indefinitely without crumbling or disintegrating. The natural color of the stone is white

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and free from the influence of surface percolating waters.

Experts say the stone can be marketed in Memphis fifty per cent. cheaper than any other class of white building stone, and considerably cheaper than cement or brick. The Illinois Central Railroad has a track extending through the property.

In order to market the stone, C. C. and Thos. J. Wellford of Memphis and W. F. Dunbar of Atlanta have secured an option on 1,100 acres of land through which the vein of rock has been traced. They are now organizing a $1,000,000 company to market the stone.

Chinese Manufacturing Town Developing Large Industries

Seventeen hundred years ago, the Chinese potters began work in Kingtecheng, for the town, now one of the four largest towns in the country, dates from the Han dynasty, when, according to the records, porcelain was first made in China, although vessels of earthenware were probably produced some centuries earlier.

A large and picturesque town of potters it still is, to judge by Frank B. Lenz's description in Millard's Review, and modernly interesting because its product, hitherto largely confined to China, will no doubt enter more and more into world trade with the present development of international commerce. They call it a "town" in China, because, although some 300,000 people live in it, it has no wall; practically it is a great manufacturing city, where warehouses, shops, furnaces, and the homes of the people are all jumbled together, as they have come into being during the centuries, and where, century by century, the great mounds of chipped and defective pottery have grown steadily higher along the banks of the river.

One reaches the town by launch or houseboat from Nanchang, and is likely to meet the small flat-bottomed boats loaded with soft white bricks, that bring the clay to the potteries from the various deposits around Poyang Lake, that so long ago led the earliest potters to establish themselves in Kingtecheng. Nowadays there are at least 200 firms engaged in the occupation, 120 pottery kilns, 1,500 art shops, and more than 2,000 form factories; and of the 300,000 inhabitants, about 200,000 live by the manufacture and sale of porcelain and pottery. And although Kintecheng is not governed by unions, and the worker is paid by the piece, there is a simple custom in force which takes the place of the eight-hour day elsewhere. If a workman works too long, the other workmen beat him.

House Built Like Refrigerator

Built on the principle of a refrigerator, with its walls insulated to keep the cold out, a new idea in construction of residences is according to the *Improvement Bulletin* being tested in the cold country in Canada. The residence has been used for a year, being occupied by the designer and his family. It was tested severely during the last winter when temperature ran to forty below zero, but it stood the test and was heated throughout with electrical heat during the hardest weather. The walls were designed to keep the cold out and appear to have done so.

The walls are hollow, the outer walls being cement plaster on metal lath with a top coat of stucco. Back plaster is placed between the metal lath and the studding. The outer wall is a sheet of concrete one and one-half inches thick. The inner wall is of two layers of asphalt paper with wood lath and plaster on top. The airtight space in the walls filled with insulating material, granulated cork with a mixture of planer shavings. The theory on which it is built is to prevent the movement of warmed air toward a cold surface.

The cost of construction was given as 10 per cent. above ordinary methods. The purpose of the test in construction was to learn how greatly heat conservation might be developed. On the cold prairies of Saskatoon the conservation of heat and fuel in winter is an important item. The test house has attracted much attention from construction and heating engineers.

Making Wood Fire Resistant With Paint

Fire retardent paints are the most practical means so far discovered by the Forest Products Laboratory by which small amounts of wood can economically be made fire resistant. The only other known methods of decreasing the inflammability of wood are to keep it wet, or to inject into it certain chemicals under pressure. These methods, though more effective than painting, are usually either impracticable or too expensive to be considered.

Ordinary calcimine or whitewash has proved in tests to be as fire resistant as any paint covering dried. It is cheap and convenient to use. Although it will not prevent the burning of wood exposed continuously to a high heat, a good coat of calcimine on wood will decrease the danger of a blaze spreading from burning cigarettes, sparks, matches and similar small sources of fire. Calcimine is, of course, more effective for inside than for outside use.

For exterior use numerous patented fire retardent

paints are available. An effective outdoor paint which has been developed at the Forest Products Laboratory consists of linseed oil, zinc borate and chrome green. This paint has maintained its fire resisting properties through more than three years of exposure to the weather.

How To Distinguish Mahogany and Walnut From Red Gum

In the manufacture of furniture and cabinets a great deal of red gum is used as an imitation of mahogany or Circassian walnut. When red gum is properly finished it can be made to look so much like either of these woods that only by very careful observation can the true be distinguished from the substitute. There is a very distinct difference, however, between red gum and mahogany or walnut. This difference lies in the size of the pores.

In mahogany, Circassian walnut and black walnut the pores are so large that they can be seen very distinctly on a smoothly-cut surface of the end grain, where they appear as minute openings smaller than pin holes but visible without magnification. On surfaced faces the pores appear as fine grooves, running parallel with the grain. They are even visible through the varnish, appearing as dark lines.

In red gum the pores are much smaller and can be seen only with a magnifying glass.

Comparative Value of Timber Cut From Live and Dead Trees

Prejudice exists in certain quarters against the use of timber cut from dead trees, and some purchase specifications insist that only timber cut from live trees will be acceptable. As a matter of fact when soun dead trees are sawed into lumber, and the weathered or charred outside is cut away, there is no method known to the Forest Products Laboratory by which the lumber can be distinguished from that cut from live trees, except that the lumber from dead trees may be partly seasoned when sawed.

All the information available at the laboratory indicates that timber cut from insect or fire killed trees is just as good for any structural purpose as that cut from live trees of similar quality, providing the wood has not been subsequently injured by decay or further insect attack. If a tree stands on the stump too long after it is killed, the sapwood is likely to become decayed or badly infested by wood-boring insects; and in time the heart-wood also will be similarly affected. The same thing is true of logs cut from live trees and not properly cared for. Until the wood becomes affected by these destructive agents, dead tree wood should be just as strong and just as durable as sound live tree wood.

In considering the subject it may be useful to remember that the heartwood of a living tree is entirely dead, and in the sapwood only a comparatively few cells are living. Most of the wood cut from trees is dead, therefore, regardless of whether the tree itself is living or not. Such being the case, purchase specifications, instead of providing that material must not be from dead trees, should state that material showing evidence of decay or insect infestation exceeding a specified limit will not be accepted.

Urge Relief for Housing Trouble

Tenement House Commissioner Frank Mann, at the next meeting of the Mayor's Housing Conference Committee, in New York, will submit the draft of a bill to be introduced at the next session of the Legislature exempting real estate mortgages from the income tax law. Congress will be asked to adopt a similar amendment to the Federal income tax law.

The necessity for such action, if the housing situation is to be relieved, was dwelt upon by Walter J. Stabler of the Metropolitan Life Insurance Company, at a meeting of the committee held in the City Hall yesterday, over which Mr. Stabler presided.

"I feel certain," he said, "that if Congress does not do something to help the situation, a crisis is not far off. Investors in mortgages are withdrawing on account of the income tax. They are taxed so heavily that there is very little left. There should be a total exemption in both the Federal and State income tax for real estate mortgages."

According to C. H. Kelsey of the Title Guarantee and Trust Company, there appears to be a disposition on the part of lenders to call in their loans. "But," he said, "my company, since January 1, has taken $27,000,000 in loans and sold $25,000,000."

Charles Froeb, president of the Lincoln Savings Bank of Brooklyn, reported to the committee that his bank had lent $1,000,000 on new construction since the first of the year. A resolution offered by Mr. Froeb that the Board of Estimate be requested not to demolish houses to make room for public improvements until the housing situation has been to some extent relieved was adopted.

The Guarantee Life Insurance Company informed the committee that in its loans thus far this year, amounting to $4,500,000, it had given preference to the construction of new houses. The Franklin Savings Bank reported loans of $1,000,000 a month for the last year.

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The Prudential Savings Bank of Brooklyn reported that it had lent from 50 to 60 per cent. of its deposits on new buildings, and a representative of the Long Island City Savings Bank stated that his institution had lent more than $7,000,000 to aid the construction of 1,286 buildings and expected to lend $1,000,000 more for that purpose before the end of the year. The spokesman for S. W. Straus & Co. reported that his firm had lent about $70,000,000 in the last year, two-thirds of that amount being for the construction of apartment houses.

Edward P. Doyle, secretary of the Mayor's Conference Committee, said today that about half a billion of capital would be required for the construction of enough apartment houses to thoroughly relieve the housing situation.

Mayor's Plea for Neater City

Every man who owns or rents a house or holds title to vacant lots ought to give serious attention to Mayor Hylan's plea for a neater city. New York is comparatively free from nuisances that imperil public health. She is notoriously careless about the little things that make for the effect of neatness and beauty. Lots filled with unsightly weeds that scatter their seeds on all well-kept lawns and front-yard flower gardens in the vicinage, piles of ashes, or rubbish, tin cans, broken bottles, discarded shoes, offend the eye. The issue is not trivial, not negligible.

We do not know how far the Mayor's menace of prosecution for some offenders may be backed by existing statutes and ordinances. Unauthorized billboards on private property, or on city property, should be torn down. We think there is no ordinance to compel a man to keep vacant lots clear of weeds. New Orleans has such an ordinance, and it is a good one.

One phase of what the Mayor protests against is largely the fault of his Street Cleaning Department. Carelessness in emptying ashes, and in letting loose papers fly into the street is noticeable for any one who cares to keep his eyes open. An ounce of prevention is worth a pound of cure. Citizens who have done all they could to meet complex orders of the department can hardly be expected to clean up after Mayor Hylan's cleaners. His Commissioner should insist on care, and get rid of the men who leave trails of unsightliness. But quibbles over technical responsibility are to be avoided. The best rule for department employees or for the citizen is to brush up where brushing up is needed. Duties are of more importance than rights to the thinking American, and the city itself should exhibit the pride it wants instilled in its citizens.

The Halt of the Pioneer

HOWEVER incomplete up to the time of writing, the census figures of 1920 show a decided check to the westward march of the population. Another fact already established is a decline in the rate of increase of population for the country as a whole, urban as well as rural. Not only was immigration shut off during the war, but there has been a further decline in the size of the family. Some very remarkable changes have taken place in the population increase of individual cities: Listed in the *Survey*, two small towns in Michigan, both of them suburbs of Detroit, Hamtranck and Highland Park, have in the last decade increased by over 1,000 per cent. Flint and Pontiac, of the same state, have an increase of 136 and 138 per cent., respectively. Akron, Ohio, is the only large city so far returned with an increase of over 200 per cent. Toledo's growth was 44 per cent., that of Dayton only 31 per cent., and that of Cincinnati only 10 per cent. Louisville, Kentucky, comes very low in the scale with an increase of less than 5 per cent., while Spokane, Wash., has remained quite stationary. There are no outstanding examples of new boom towns in the mine and lumber region of the West; most of the large increases are east of the Mississippi. Nevertheless, grouping them by states and regions, the cities and towns of the West still increase faster than those of the Atlantic coast and of the center.

Patriotic Englishmen recognize with sorrow that in their geographies they will probably have to erase London and substitute New York as the largest city. As in the case of the figures just quoted for two of Detroit's suburbs, however, such comparisons are very misleading. London simply is twenty years ahead of New York in the movement of decentralization, which has extended beyond the so-called "outer ring" of Greater London; and a far greater proportion of its industries and residences are situated in pleasant satellite towns. An editorial in *Community Leadership*, the organ of the American City Bureau, aptly expresses a sentiment in this respect which has on various occasions been voiced in these columns:

In American we have grown so accustomed to thinking in terms of size and numbers that we seldom pause to ask ourselves whether an increase in population is an asset or a liability. Too often we have deluded ourselves with the belief that size itself was a virtue, but the war has taught us anew that it is not the biggest man or the biggest implement that best withstands the crucial test, but that one in which all the parts are best coordinated. Accordingly, as the census figures are announced, it is an opportune time to ask ourselves whether

the measure of our cities should be numbers of inhabitants or quality of citizenship. Each newcomer adds to the city's responsibilities.

Army and Navy Club's Memorial Building

As a permanent memorial to the more than 3,000 American officers who died in the world war the Army and Navy Club of America, of 18 Gramercy Park, will establish in New York City a $3,000,000 service club house, where, among other memorial features, the military record of every officer will be preserved for future generations.

In making the announcement Rear Admiral Bradley A. Fiske, U. S. N., retired, president of the club, said that it is proposed not only to make the new building a memorial of national significance, on the order of Grant's Tomb on the Hudson, but also to establish a graet center for general patriotic activities and an auditorium for large public assemblages.

With 2,500 members already in the club and approximately 195,000 others, in all branches of the service, to draw from the club in time should become, even without civilian memberships, by far the largest in the world, Admiral Fiske said.

It is the intention of the club, however, he said to make the memorial feature predominant.

The record of all officers, with personal data and souvenirs contributed by their families, will be preserved in the new building in a special memorial court or hall, which will be built from plans drawn in competition by leading architects of the country. The memorial in this respect would be unique, nothing like it ever before having been attempted.

It is planned, by appealing to the adjutant generals, to the Red Cross and other organizations, to make the final list of those who died in service the most complete and authentic in the country.

"It is planned to make the new building not only a monument to the heroic dead, but a home for the living, where the best traditions of the service will be maintained," Admiral Fiske said.

"Officers in all branches of the service coming to New York can find at this club accomodations at prices commensurate with their incomes. Our present quarters are entirely inadequate, and something must be done to provide for the hundreds of officers who are passing through New York at all times and for many of whom satisfactory hotel accommodations are a serious problem.

"Dues and house charges, accordingly, will be exceedingly moderate. There will be a large number of bedrooms, but in addition, the plans include a dormitory furnished with cots, where army officers may always be sure of a place to sleep. The new building will also have, besides the meeting rooms for patriotic societies, a special dining room with private entrance for ladies, and others attractions appealing to patriotic men and women.

"It is hoped that the building will become a center of patriotism, where the histories of the officers of the United States Army and Navy may be kept and where coming generations may find inspiration. This will serve also in keeping before the public the importance of officer service.

"Civilians will be eligible to associate membership, it being the desire to establish a place where officers and men of affairs can get closer together to their mutual advantage.

"We want the new club, in fact, to be a national institution for the preservation of American ideals and the propagation of American principles."

News Notes from Various Sources

Frederick Rasmussen, Pennsylvania State Secretary of Agriculture, says there are from 4,000 to 6,000 idle farms in Pennsylvania today, many of them among the most fertile in the State.

* * *

Trustees of General Educational Board and of Rockefeller Foundation announced appropriations totaling $20,261,900 for various purposes of general education and medical schools.

* * *

Dwelling house fires in 1919 numbered 210,000, and represented over 22 per cent. of the total value of the fire loss of the country, according to the annual report of the statistical bureau of the National Board of Fire Underwriters.

* * *

Plans for organization of a National Chamber of Agriculture along lines of Chamber of Commerce of United States were made at opening at Washington June 17 of first annual convention of American Association of Agricultural Editors.

* * *

Chicago has adopted daylight saving, and has set the clock forward for one hour, following the example of New York City. The municipal, State and Federal departments have agreed to adopt the new time, but it does not affect railway trains.

* * *

Construction Division, one of the emergency creations of the war, is about to pass out of existence as a separate institution. Plans for its merger with the Quartermaster General's Department, from which it was made at beginning of war, are now in hands of Quartermaster General.

* * *

A conference of representatives of various wood-using industries is to be held in Madison, Wis., on the afternoon of July 23, 1920, and the question

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of a national forest policy will be discussed. It will be an open meeting, and the discussions should be of wide general interest.

* * *

At the Commencement of the University of Illinois on June 16, 1920, and at various times during the year, 162 B. S. degrees were granted to students of the College of Engineering. Of these 18 were for architecture and 24 for architectural engineering.

Personals

Jerauld Dahler, architect, is now located at 320 Fifth Ave., New York City.

J. L. Vannucci, architect, has gone into business at 1024 Main street, Bridgeport, Conn.

John D. Boyd, architect, has opened an office at 105 West Fortieth street, New York City.

Steinler and Kritz, architects, formerly of 103 Park Ave., New York City, have gone out of business.

Frank Newman and Norman McGlashen have opened an office for architectural practice at 120 East Fortieth street, New York City.

An architectural office has been opened by John V. Van Pelt at 126 East Fifty-ninth street, New York City.

The firm of Ford, Buck and Sheldon, 60 Prospect street, Hartford, Conn., is now known as Buck & Sheldon, Inc., architects and engineers.

Howard Major, architect, has recently become associated with Walter D. Blair, with offices at 154 East 61st street, New York.

Lockwood, Green & Co., engineers, 101 Park avenue, have established an office in Philadelphia under the management of Charles P. Wood.

Bly & Hamann, architects, announce the removal of their offices from 833 St. Johns place to 551 Nostrand avenue, Brooklyn, New York.

G. C. Freeman has removed his office from 1111 North 11th Street to the Reading Liberty Bank Building, Reading, Pa.

Rudolph Kruger and Nathan Siegler announce that they have opened offices at 207 Market St., Newark, N. J., for the practice of architecture and engineering. Catalogues are desired.

Theodore A. Meyer has moved from 114 East 28th St., New York, to 150 E. 41st street, New York, and desires manufacturers' catalogues.

John C. Black, landscape architect and engineer, Tacoma, has gone to Chicago to take an editorial position on "Engineering and Contracting."

Earl A. Roberts, architect, now located in the American Bank Building, Seattle, is to take up quarters at 1056 Empire Building.

Harry Bryant, architect, formerly at 291 Hinsdale street, has moved his offices to 367 Fulton street, Brooklyn, New York, Room 512.

Hays & Hoadley, architects, formerly at Broadway and 68th street, are now located at 204 Amsterdam avenue, New York.

Marohak & Hickey, architects, Strand Bldg., Providence, R. I., have dissolved partnership and the firm is now under the name of Joseph A. Hickey.

Milton P. Pettebone has opened an office for the practice of architecture at 71 Broadway, Detroit, Mich. Mr. Pettebone was formerly with McKee, Williams and Pettebone, Newport News, Va.

Announcement has been made that Stork & Knappe, architects, formerly of Palisades, N. J., have removed to Ardsley, N. Y., where they are located on King street.

Removal notice has been issued by J. Floto, architect, whose offices were formerly at 139 North Clark street. He is now at 189 West Madison street.

H. H. Whiteley of Los Angeles, California, formerly 429 Story Building, has opened new offices at 520 South Western avenue, Los Angeles, for the practice of architecture. He wishes samples and catalogues.

John H. Holler, Jr., and John G. Kleinhenz, architects, have formed a partnership for the general practice of their profession, with offices at 1012 Gates avenue, Brooklyn, New York. Mr. Holler was formerly a member of the architectural firm of Froling & Holler, 150 Nassau street, Manhattan, which was dissolved some time ago.

Samuel L. Malkind, architect, formerly located at 1270 54th street, has moved his office to 16 Canal street, Brooklyn.

Mann & MacNeille, architects and engineers, with offices at 70 East Forty-fifth street, New York, have been compelled by their steadily growing practice to open a permanent Western branch office, which is located in the Book Building, Detroit, Mich. This firm specializes in town planning and civic development.

Weekly Review of the Construction Field

With Reports of Special Correspondents in Prominent Regional Centers

FROM Glasgow, Scotland, comes the news of a just, common-sense view of restrictions and limitations laid upon the building program.

There is so generally current a theory of the exclusive importance of dwelling house construction and such an easy-going acceptance of such a pronouncement that it is a relief to see the carefully stated decision of the Appeal Tribunal at Glasgow, published in The Architect, London. The Corporation had prohibited the erection of nine motion picture theaters; but on the judgment of Tribunal this prohibition has been annulled. The judgment is such a simple, straightforward statement of facts that we quote:

"This tribunal is fully alive to the importance and the need of building dwelling houses in Glasgow. But this statutory tribunal has been set up to protect the interests not only of the building trade generally but of the community as a whole, and they have a great deal more to consider than the needs of the contractors who have been selected by the respondents to do their dwelling-house work. The purpose of the creation of this tribunal is to safeguard the interests of others than those carrying out the housing schemes of local authorities. The duty of this tribunal is to interpret and administer this Act of Parliament; not merely to register their assent to orders made by a local authority, unless the local authority has discharged the onus resting upon them of showing that the making of such orders was an absolute necessity of the circumstances. A statute conferring powers of restricting trade or industry is to be strictly construed against those operating such restrictions.

"It does not appear to the tribunal that there need necessarily be competition for men or material between the buildings prohibited and the housing schemes of the respondents. It has not been established that material or labor would become available to respondents' housing contractors by the appellants' buildings being prohibited.

"In the opinion of the tribunal, the extent of the responsibility laid upon local authority under the statute is very much more extensive than merely to contrast the relative importance of dwelling-houses and cinema houses after they have been built. If this had been intended to be the limit of a local authority's outlook, there was no need for an Act of Parliament at all, for everybody realizes, and none more so than the members of this tribunal, that dwelling accommodation is the pressing national necessity. But the duty laid upon a local authority is to have regard to the relative public importance of all building operations, and it is not the intention of this statute that the interests of many sections of the building trade should by prohibition be sacrificed to the interests of one section, unless there is no other way, after every effort has been made to find it, of accomplishing the house building."

We are having our fill of dwelling-house propaganda, whether it comes from political, or journalistic, or some other source. We all know that small dwelling-houses are needed, but whether they are to be constructed to the extinction of all other forms of construction, is another matter. Probably there will be no such entanglement with restrictions of officialdom in this country as in England and the buildings put up will be those so urgently needed that the effort brought to bear will overcome all difficulties and competition.

It is difficult to decide just which type of building is most important and which of a secondary nature: whether factories, apartments, or workers' cottages. But such economic problems have a way of working their own solution and we need not fear under present conditions that an appreciable amount of building which is without great economic value will manage to get itself done.

(By Special Correspondence to The American Architect.)

Chicago.—The construction industry of Chicago seems to be playing a waiting game. Apparently the builders are willing to wait to allow the material men to fight the battles with building labor.

The building supply men, particularly the lumber interests, have been roused by the falling off in the demand for their products. And they blame the present high prices and consequent decrease in building on labor and its "Unreasonable wage demands." They believe that many contractors and builders have been antagonized by the attitude of labor and hampered by the constantly recurring jurisdictional strikes until they have ceased all building operations rather than submit to wage demands which in many instances have exceeded reason.

It is expected by both building and lumber interests that this stand on the part of the employers will eventually bring prices and wages down. Much unemployment in the trades is said to exist and expert building craftsmen are reported to be now seeking employment in shops—offering to work at any job or any wage.

While high prices of labor and materials lead in reasons for light construction, a third cause for the present stagnation is found in the shortage of cars. The heads of building material companies say that the present assignment of all opentop cars for coal and of tight box cars for grain has left the building material interests absolutely without cars. A dele-

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gation from Chicago has appeared before the Interstate Commerce Commission urging that body to apportion cars to their industries.

(By Special Correspondence to The American Architect.)

Seattle.—There has been some relief in the movement of small pipe into this territory from eastern mills, but three-quarter inch stock is still short. There have been no price fluctuations in these materials. Nails are still being rationed although tentatively jobbers are getting more of a supply.

The car shortage is sharing honors with the lack of skilled workmanship in the eastern mills in keeping the supply at a heavy percentage under the demand. In all products where skill is requisite, there seems to be a woeful lack of arrivals. Jobbers who have examined recent receipts of shingle nails have discovered that the small blued nails do not even attempt to conform to equality in size, and here can be found the proof of the claims of manufacturers of their inability to get experienced men.

There has been a fair increase in the stocks of black pipe, which has carried the bulk of the demand so far during the building season. There is more half-inch pipe on hand. The demand has fallen. All the big jobs in this territory so far known to be going through have been taken care of on sub-contract, and due to the presidential election year with its disturbance of business jobbers of building materials predict that the North Coast territory is in for a dull period.

Fire brick advanced to $75 per thousand this week. During the past four months, while shipyards that had been on the speeding-up war basis of war time have been dismantling, 200,000 low heat fire brick have been offered which upset the market for high standard materials. The last of this lot has been cleaned up, and instant strengthening of the market followed. Some of these yards have catapulted a bearish tone into the steel market by throwing 2,000 tons of steel materials at the buyers. The bulk of this is steel bars. Until the lot is cleaned up unsettlement is expected.

Eastern steel mills claim to be sold up on all small sizes and complain of the difficulty of turning out materials that run heavily into tonnage. On this account they are firming orders for the third quarter with the reservation that they make delivery in the fourth quarter.

The reduction in the rates on steel from Colorado mill points to Puget Sound this week is taken to mean that this district is to be permitted to enter into closer competition with Pittsburgh against the forthcoming resumption of coast-to-coast water service through the Panama Canal. Pittsburgh has a rate of 99 cents by combination of rail to the Atlantic and water to Puget Sound against an all-rail rate of $1.25. The new rate from Pueblo, Colo., will be 86½ cents per cwt. on iron and steel, a reduction from 94 cents. The bulk of nails for this territory is coming from Colorado.

Lath is down to $7.50 delivered on the job. More roofing, plaster board, cement and brick is being offered than the jobbers can move.

Lumber is steady. Wholesalers state they can get plenty of new business if they will cut the market, but this they are refusing to do on the ground that the market is near a rally. They are hedging by accumulating a lot of orders on the "short" basis. The firm mills are 6,500 carloads behind on their eastern rail business, or 50 per cent of the accumulations during the high midwinter market. The car shortage is getting more serious.

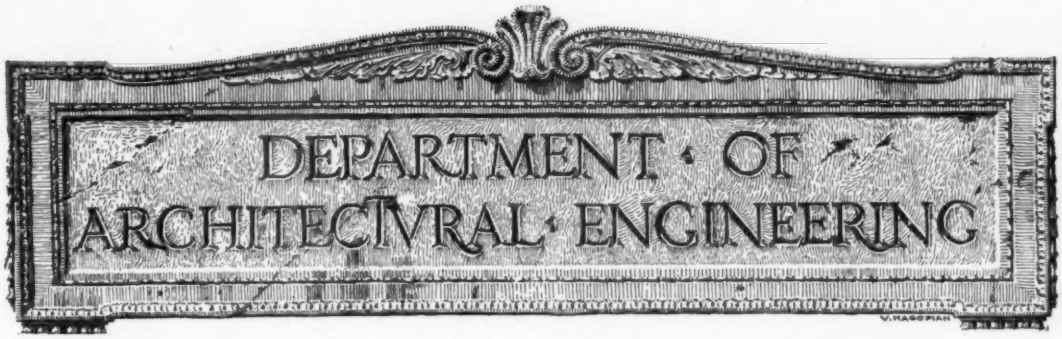
The red cedar shingle market broke again to $3.75 for clears and $3.25 for stars, f.o.b. mill.

(From our New England Correspondent)

Boston.—This week started off with a marked improvement in the tangled railroad situation and with bright prospects for an early increase in coal shipments to relieve the acute need in New England. Although many industrial plants are running on three or four day schedules, the coal shortage is so serious that these plants must close down entirely unless some increase is shown in the shipments this coming week. It is also reported that two of the railroad systems have only a sufficient quantity of coal on hand to carry them through the next thirty-six hours.

The now "outlaw" strike on the part of certain of the railroad employees is hampering the return of cars to the mines for fresh loadings and slackening the flow of goods to and from New England. By holding up the transport of goods, this strike is also retarding the liquidation in commodities and the reduction of loans, which the banks are so anxious to bring about in the interests of national business safety.

That 400 new one and two-family houses and one big apartment block will be available in Springfield, Mass., in the fall was the estimate made this week by the president of the Tenants' Protective Association. One of the men sent out to investigate building operations reported about 200 houses going up on a two-mile stretch in one of the suburbs.



Annual Meeting of American Society for Testing Materials

Asbury Park, N. J., June 22-25

THE twenty-third annual meeting of the American Society for Testing materials was held at the New Monterey Hotel, Asbury Park, N. J., June 22 to 25, 1920. The total registration was 550 members, 108 non-members and 143 ladies, a total of 801 persons.

Many reports and papers were presented, covering a wide range of subjects. Only those of particular interest to the architectural profession will be here mentioned.

In the annual address, J. A. Capp, retiring president, said in part:

In the charter of the American Society for Testing Materials it is stated that "the corporation is formed for the promotion of knowledge of the materials of engineering, and the standardization of specifications and the methods of testing." Our founders appear to have divided the field which they selected rather sharply into two sections or divisions. That the two sections are closely interrelated is evident; in fact, one may say that successful cultivation of one section may not be expected until after the reaping of crops from the other. Standardization of specifications for materials before a reasonable knowledge of those materials has been obtained is patently absurd and this knowledge may only have been acquired through development and application of methods of testing which, in turn, must have been so commonly used that investigators may understand the recorded results of others and compare them with their own. Yet our founders had good reason to define two sections in the field of our society's work. While all standardization is founded upon knowledge of materials it does not follow that all the knowledge of materials which we may acquire leads necessarily to the formulation of specifications, nor even to standardization of methods of testing. * * * * *

No time need be spent in arguing for or against the desirability of establishing standards. Last year, President Clamer ably discussed this subject, and the perilous times through which we have recently passed have taught us the great value of standardizing. There is, in fact, a great wave of effort to unite in standardizing work passing over not only this country but practically over the civilized world. The American Engineering Standards Committee has gotten into its stride and rapid progress is being made both in organizing for work on proper lines of co-operation among the bodies in this country which have heretofore carried on their efforts more or less independently, and for concurrent work with other countries. Whatever may be the opinion of some who pessimistically believe that standardization will retard progress, we must recognize that fact that the day of standardization is here. We need have no fear of stopping progress. So long as human beings are richly endowed with curiosity and with a desire to learn and excel, progress will be made in all fields of human endeavor. No amount of fixing of rules will stop man trying the effect of breaking rules or of making new ones to cover new conditions. No standards can continue to hold in the face of newly developed qualities or materials which can be shown to be improvements upon those previously fixed. * * * * *

The making of specifications presupposes a knowledge of the materials covered. None who have had the privilege of participating in committee activities will ever have any other impression than that of a wide knowledge of materials among the committee members. In fact, that is why they are members. It is a safe statement that the issue of each set of specifications marks a distinct and definite step forward in our knowledge of materials. * * * * *

The real user of engineering materials is the designing engineer who must make a definite selection of the material to be used in the fabrication of each part of his design. He must base this selection upon facts which may be listed under three headings—cost, availability and suitability. Market conditions supply the matter to be placed under cost and availability, while under suitability must be included all of the knowledge of the materials which he can gather together. He

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must have not only the control properties commonly specified, but also data on such questions as reliability and duplication and on the special qualifications which must be possessed in order that the part in question may render the service demanded of it. The development of modern engineering practice has made necessary a much more intimate knowledge of the general and special properties of materials than was formerly required and there has grown into existence among engineers a class of specialists on materials. * * * * *

The designer presents a concrete problem, he wants to know what material he should use in a certain part and why. The listing of properties as determined by tests, even including many sorts of tests not usually made in routine inspection, is not a sufficient answer, because it is not usually possible to say in any quantitative sense what influence any given property has upon the useful life of the material in a specific application. The questions asked by the designer must be answered and in most cases, the answer is possible only by long explanations and discussions which lead to a decision based upon inferences drawn from experience and backed up by judgment. This process has sometimes been called "educated guessing," and that so much of engineering is based upon inference and judgment is simply because the demand for knowledge has grown so much more rapidly than the supply.

The demand was recognized when, twenty-three years ago, our society was organized. The first problem to be attacked was obviously that of standardizing the commonly available materials and the methods of testing them. To that problem our committees have addressed themselves and the results have been of inestimable value. The work will never be completd because new materials are constantly being developed and old materials improved as methods of manufacture are bettered. There will never come a time when there need no longer be committees whose main business is the formulation of specifications. * * * * *

We know the conditions to be met in service by any structural part and we know many of the useful properties of materials. Must we not now address ourselves to the solution of the problem "on what properties does the suitability of a material for particular applications depend and how may these properties be used to measure suitability"?

There is no more profitable field for committee work and it is one obviously within the boundaries set and described by our founders in their application for a charter. If we do not actively cultivate this field through committee work and every other sort of society activity, are we doing all we should do for "the promotion of knowledge of engineering Materials"?

Steel Pipe.—The report of Committee A-1 on steel includes proposed revised standard specifications for welded steel pipe. Contained therein are tables of weights, dimensions and test pressures for standard and extra strong welded pipe of diameters from ⅛ to 12 inches, the latter size being the present limit for commercial sizes.

Timber.—Committee D-7 included in its report proposed revised tentative specifications for structural Douglas fir. The previous specifications were based largely on a visual method for determining density, as was the case for southern pine, but because of the difference in the size and the characteristics of growth of Douglas fir and southern pine, it was found after considerable experience that many serviceable pieces of Douglas fir timber were rejected under the clauses of the tentative specifications. Since the original publication of the specifications, a good many tests have been conducted by the U. S. Forest Service and others, as a result of which much information has been developed that is of importance in connection with the revised specifications submitted with this report. It is of particular interest to summarize briefly the significance of density and structural grading rules:

Tests at the Forest Products Laboratory of the U. S. Forest Service and elsewhere have shown that the production of timbers wherein uniformity of strength properties, durability and resistance to wear and abrasion are required is dependent chiefly upon two factors: (1) The density or dry weight per cubic foot of the wood; and (2) the character, size, number and location of defects. Strength is closely proportional to the density of the clear wood and is limited by the defects present. Density is a factor in durability and in resistance to abrasion.

Heartwood and sapwood are not factors in strength, exhaustive tests having shown them to be of practically equal strength; but they are important factors in durability, heartwood being far more durable than sapwood. Heartwood requirement is not, therefore, a part of a structural grading rule except as a special requirement in timbers which will be subject to decay-producing conditions.

The production of good structural material of any species, therefore, depends upon enforcing a specification which provides: (1) That the density, or dry weight of the wood, shall not be below a certain minimum; and (2) that the defects shall not exceed certain definite limitations.

Brick.—The report of Committee C-3 on brick, which was adopted, recommends that a revision be made in the specifications so as to change the proposed standard size for building brick from 2¼ by 3⅞ by 8 inches to 2¼ by 3¾ by 8 inches. This change was made for the purpose of conforming to the standard sizes adopted by the Common Brick Manufacturers' Association and other organizations. The tentative specifications for building brick, as thus revised will be referred to letter ballot of the society for adoption as standard.

Sand.—The importance of sand is not generally recognized. At the last annual meeting Committee C-7 on lime, of which D. K. Boyd, F.A.I.A., is chairman, requested that as nearly all of the "Group C" committees of the society are interested in and have to deal with the question of sand as an admixture with the material over which each committee has jurisdiction, the Executive Committee be requested to instruct all standing committees inter-

ested in sand to elect sub-committees on this material; and that the Executive Committee be requested to create a standing committee on sand to be composed of one delegate from each of the above mentioned sub-committees.

The Executive Committee subsequently went on record as follows:

"That it is undesirable to create a separate standing committee on sand as suggested by Committee C-7, and that if any committees of the society concerned with specifications for sand desire, the present machinery of the society provides a satisfactory means of discussing matters of common interest through the formation of a conference committee on which each standing committee concerned would be represented."

During the annual meeting a conference on sand, as suggested by the Executive Committee, was held.

Structural Lime.—Sub-Committee II of Committee C-7 on structural line reported that it has been unable to obtain a satisfactory standard sand for use in laboratory tests of lime; also that the desired co-operation with Committees C-1, C-9 and C-11 has not yet been perfected in detail.

After a general review of its previous work the sub-committee finds that there are some fifteen properties which should be included in specifications for different kinds of structural lime. It is now prepared to write the requirements for most of these properties. Information is required concerning a few properties, and the year has been spent in the development of the necessary test data. The items of particular interest are plasticity and soundness.

Gypsum.—The report of Committee C-11 on gypsum includes proposed tentative specifications for gypsum, calcined gypsum and gypsum plasters, as well as for tests of gypsum and gypsum products.

Cement.—Committee C-1 on cement reported that its activities during the past year have been largely centralized in the endeavor to secure one generally accepted "Specifications and Tests for Portland Cement."

The present specifications of the American Society for Testing Materials for Portland cement became effective on January 1, 1917. There was an opinion among some, however, that the specification for the "fineness" should be different and for this reason the U. S. Government Departmental Committee concluded to specify a fineness with a permissible 2 per cent. less residue on the No. 200 sieve than that permitted by the American Society for Testing Materials specifications. Their specification was finally made by the Government Departmental Committee to become effective January 1, 1920.

A conference between committees appointed by the Government Departmental Committee and the Executive Committee of the society was held on May 10 at the Bureau of Standards, Washington, D. C. This conference entered fully into the effect of fineness on the strength of cement and concrete and also into the cost of producing additional percentages of fineness. The results of the conference were most satisfactory.

As a result, Committee C-1 requested the society to withdraw from the standard specifications and tests for Portland cement section 36 on permissible variation in fineness. This request was acted on favorably at the annual meeting.

Reinforced Concrete.—Committee C-2 on reinforced concrete is co-operating with the Joint Committee. It will probably be some time, however, before the work of the Joint Committee has progressed to a point where tentative specifications can be published.

At its meeting on May 12- 1920, Committee C-2, after careful consideration of the situation, decided it would be unwise to undertake any work until the Joint Committee had made sufficient progress in its work as would indicate along what lines Committee C-2 could assist in the work of preparing specifications for concrete and reinforced concrete.

Concrete.—The report of Committee C-9 on concrete aggregates was devoted largely to the results of investigations of various methods to determine the method and apparatus by which the most satisfactory results may be obtained in the determination of the unit weight of aggregates by different operators under different conditions.

The method found most satisfactory is specified as the rod method. Its application is described as follows:

Fill the measure one-third full, level off top surface with the fingers, tamp with pointed rod 25 times. Fill measure two-thirds full and tamp 25 times. Fill measure to overflowing, tamp 25 times. Strike off surplus aggregate, using rod as straight edge and weigh.

Accompanying the report of this committee were two appendices as follows: Appendix I. Recommended Practice for Making Compression Tests of Concrete; Appendix II. Effect of Tannic Acid on the Strength of Concrete, by Professor Duff A. Abrams. The latter gave results which sand containing varying degrees of impurities—organic matter—might be expected to have on the strength of concrete. The results thus obtained will be printed in a later issue.

The annual golf tournament was held on the afternoon of June 25, and a goodly number tried their skill.

Considerable merriment as well as some embarrassment to Mr. E. D. Boyer, chairman of the Entertainment Committee, was caused at the evening

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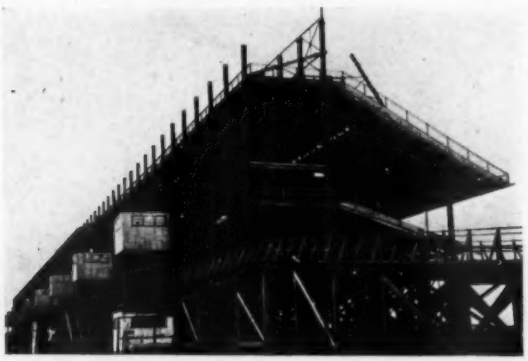
session when the time came to present the two cups and three medals awarded by the society to the winners. This was due to the mysterious disappearance of two of the medals. Mr. Boyer placed the blame on some jealous golfer. However, the missing medals were later located, and all ended well.

Other Papers.—At the closing session among other interesting papers presented was one on the "Effect of Hydrated Lime and Other Powdered Admixtures in Concrete," by Professor Duff A. Abrams, and the "Effect of Rodding Concrete," by Professor F. E. Giesecke. The important points brought out in these papers will be summarized in a later issue. The effect of hydrated lime on concrete has been a subject of interest for several years.

Sheepshead Bay Race Track Demolished

Former Structures Will Probably Be Replaced with Dwellings

IN 1915 one of the finest automobile race tracks in the East was completed at Sheepshead Bay, N. Y., at a cost of several millions of dollars. The track, which was timber surfaced over a structural steel framework, was of oval shape, two miles to the lap, one-half mile on each straightaway and one-half mile at the turns. The grandstand provided seating accommodations for 3,500 persons, and 3,000 persons could be seated in the "bleachers." The entire area occupied by the track and accessory structures included an area of 430 acres. Apparently the venture proved disappointing from a financial standpoint, and a decision was recently arrived at by the owners to demolish the entire structure.

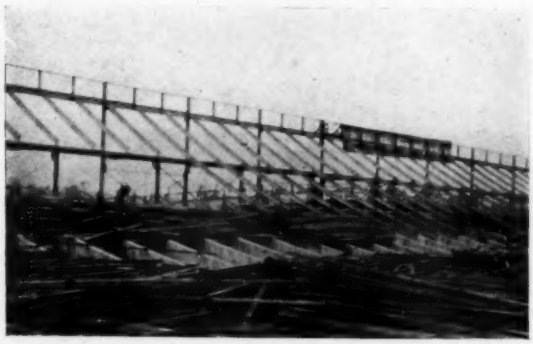


THE GRANDSTAND, WHICH PROVIDED SEATING ACCOMMODATIONS FOR 35,000 PERSONS, IN COURSE OF DEMOLITION

The illustrations show the track and grandstand in process of removal. The steel, timber, etc., is being sold for what it will bring, but it is doubtful if any material balance will remain after the demolition costs have been deducted.

The steel track beams were very costly due to the necessity of bending them against the webs to a specified curvature in order to produce the saucer-shaped track. These are now of very little commercial value due to this very feature which added so materially to their original cost.

The primary reason given for the demolition is the consequent reduction of taxes. Since this property is adjacent to a well developed residential section, and forms a very valuable site for such further development, it is quite possible that the removal of the track is but the preliminary step to an extensive residence building program on the site. Such buildings are greatly needed, and undoubtedly would prove more successful financially than the structures now taken down.



A VIEW OF THE TWO-MILE TRACK, WITH TIMBER SURFACE REMOVED

Koehler, Spyer & Farrington were the architects and engineers of the structure, the construction work of which was completed within five months.

The frabricated structural steel amounted to approximately 4,500 tons and some seven million feet B.M. of yellow pine were employed in the construction.

Successful Building in Stucco

VIII—The Reinforced Concrete Frame Building

THE preceding articles of this series dealing with proper methods of building in stucco, lend additional interest to a recently developed system of concrete frame and stucco construction that has successfully withstood the preliminary tests of actual building operations.

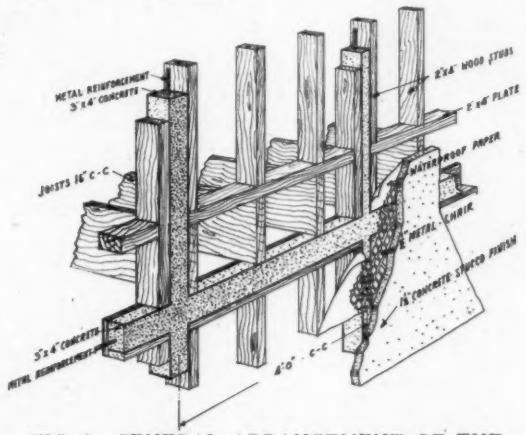


FIG. 1. GENERAL ARRANGEMENT OF THE FRAMEWORK

In this new system, here described and illustrated, no sheeting nor back-plastering is employed. It produces a house with 1½ in. reinforced concrete outer wall with stucco finish, cast as a monolith and supported by a reinforced concrete framework. The originator of the system, having had experience with various forms of construction,—brick, hollow tile, stucco and combinations,—became convinced that the solution of the problem required some new and permanent form of masonry construction, sufficiently low in cost to be within the purchasing power of a man of ordinary means, yet of a type which should provide a permanent structure with low upkeep cost.

In solving the problem the general ideas of reinforced concrete factory construction have been largely followed. Where, in the factory, there are main columns, lintels and girders as a frame, and openings in the outer wall filled with spandrels of brick, windows, etc., in dwellings there are 3 in. x 4 in. reinforced concrete studs, not over four feet on centers and reinforced concrete girders, lintels and ledger boards, all forming a complete frame-work with which is cast as a monolith the 1½ in. reinforced concrete outer shell. The character of the final structure was not the only consideration but the details of this system were developed with the view of also simplifying methods of construction, which may be described as follows:

After the cellar has been excavated, the stone or concrete foundation wall is built, the first floor wood joists are set in place on the foundation walls. On this a frame, consisting of studs, joists and rafters, is erected, following the usual method of building the skeleton of a timber frame house with these slight modifications to adapt it to this system: (1) Every fourth stud is doubled, allowing a 3 in. x 4 in. space between, which, when filled with concrete, will form a concrete stud. (2) At the second floor and roof levels ledger boards, with bottoms attached, are placed over the studs and so arranged that when filled with concrete they form beams, which, in connection with the vertical concrete studs make a complete homogeneous concrete frame. The concrete studs when filled form continuous posts from foundation to roof, and the main beams form continuous bands entirely around the building.

The wood framework of the building is erected and the roof is completed, as well as the door and window frames, before the placing of the concrete or stucco. If necessary, either because of delay or for economy of construction this wood framework can stand for some time, as it is amply self-supporting.

The next operation is the nailing of heavy waterproof paper on the outside of the exterior wall studs, leaving open the space between the double studs and the spaces made in front of the lintels and ledger boards to receive the concrete. Over the waterproof paper, expanded metal or other form of reinforcement is stretched, care being taken to place sheet metal chairs under the reinforcing so that it is held ½ in. away from the surface of the paper.

The concrete work can now be started. The 1½ in. thick concrete coating can be applied to the exter-

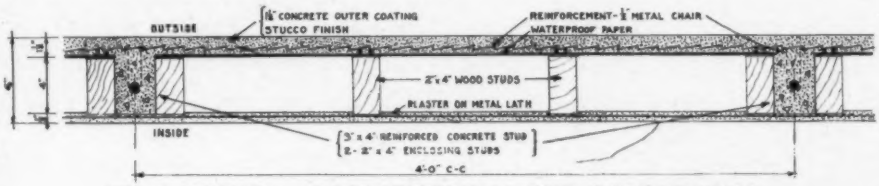


FIG. 2. TYPICAL CROSS-SECTION OF THE OUTSIDE WALL

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FIG. 3. INSIDE VIEW OF WALL, SHOWING CONCRETE STUDS, ALSO SPECIAL LINTEL OVER TRIPLE WINDOW

ior either by hand plastering, cement gun or stucco machine. If applied by hand, the concrete studs, beams and ledger boards are generally poured in advance and a reinforcement of rather fine mesh is used. This reinforcement covers the openings left in the waterproof paper and thus becomes the front form for the studs and beams. The concrete, when poured, flows only partially through the fine mesh, leaving a rough face which later on forms a good bond with the 1½ in. outer coating. The general arrangement is illustrated in Figure 1. When the exterior coating is applied by a cement gun or stucco machine, the reinforcing is of a larger mesh and the concrete studs and beams are filled at the same time that the outer coating is applied, the concrete material passing readily through the large mesh of the reinforcement.

The addition of mortar stain to the concrete while it is being mixed, makes possible any desired color effects. Any of the well-known, successful types of stucco finish can be used. Moreover, in place of the 1½ in. concrete slab, a 4 in. brick wall can be substituted, the brick being anchored securely to the concrete studs. Pleasing variety can be obtained by having a brick first floor and a stucco second floor, or by having stucco throughout with brick trim, or by a number of other equally attractive combinations.

The exterior wall work being completed, metal lath is applied to the inside of the wooden studs, and the interior of the building is plastered. This completely encloses the wooden studs and gives that highly desirable dead-air space. The wood studs act in a dual capacity, as a temporary support for the stucco and concrete frame while it is being placed, and later on as furring strips in the finished building.

As soon as the concrete and stucco work has set up, the entire weight of the building, including roof and floor loads, is carried on this concrete frame. The general wall cross section shown in Figure 2 shows the complete absence of sheeting, and illustrates how the reinforcing is held ½ in. away from the waterproof paper. It also shows that when the 1½ in. outer coating is put on and forced in place against the paper the concrete is folded back on itself and completely and thoroughly encloses the metal reinforcement, and no back plastering is necessary.

FIG. 4. EXTERIOR VIEW SHOWING PAPER AND REINFORCEMENT IN PLACE. Concrete studs and beams have just been cast.

No attempt has been made to make the entire house fireproof, as for commercial and financial reasons, it was deemed sufficient to have the exterior and party walls, as well as the roof of fire-resisting construction, it being a well established fact that in group houses with party walls made of fire-resisting materials there is little danger of fire spreading to other houses, each house in itself being an independent unit when the spread of fire is considered. The roof covering most generally used with this type of construction has been slate or asbestos shingles or some similar material.

This wooden floor construction, however, has merely been a matter of economy. If desired, the floors can be constructed of thin concrete slabs supported on concrete beams. In fact, because of the scientific design of the walls as compared with a solid 6 in. or thicker concrete wall, there is enough saving to supply all the material necessary for these floors. Also, in the design of the frame-work, the system is extremely flexible, and especially designed beams or lintels can be placed over long window openings and similar places if desired, as shown in Figures 3 and 4. This type of construction being purely an engineering design, openings can be left at any place and members reinforced to take care of any loads coming down, thus giving great latitude in design.

FIG. 5. TIMBER FRAMEWORK COMPLETE
Waterproof paper partly in place showing openings left for studs

This new type of construction should not be confused with the ordinary type of stucco on wood or metal lath over standard wooden frame where trouble is more likely to occur from cracks due to shrinkage or settlement. It is something radically different from this older form of construction.

The fundamental causes of cracking and crazing are eliminated since the outer coating is backed up and supported by rigid reinforced concrete studs and beams.

FIG. 6. OUTSIDE REINFORCEMENT ENTIRELY IN PLACE
Pouring of all beams and studs completed, ready to receive the outside coating

The stucco has been made up of Portland Cement Mortar and treated with waterproof materials. The waterproof treatment prevents rusting of the reinforcing metal as well as stops the passage of moisture through the 1½ in. slab.

The advantage of this system over the older forms of stucco construction may be summarized as follows: It possesses in large measure virtues and advantages common to masonry construction, while retaining the economies of wood. It permits the erection of a reinforced concrete masonry house by ordinary members of the building trades, without requiring of them any additional skill or knowledge other than what they already possess. It re-

FIG. 7. OUTSIDE STUCCO WORK IN PLACE. BUILDING COMPLETED.

quires no special forms for erection and, therefore, dispenses with any costly form rentals. It offers a limitless variety of outline or architectural treatment —a variety in fact limited only by the desires of the owner or scope of the architect. It does not require that a large number of houses be erected in order to attain a fair degree of economy, but retains economy with even a single house. It imparts all the benefits accruing from a dead-air space with the walls, thus eliminating condensation and dampness, and providing a house which will be cool in summer and easy to heat in winter. While the wooden frame house is slightly cheaper in first cost, its maintenance will be quite likely to increase the ultimate cost to a higher figure than a house built by the concrete frame system. The accompanying photographs show a typical twin house in various stages of construction built by the new system.

Because of its recent appearance, the building code of the average city has not yet recognized this form of fire resisting construction. Thus under present building requirements, in many places, it has not, as yet, been permitted within the fire limits. However, this is a matter which will undoubtedly be corrected in time and the recent tests made by the Fire Underwriters' Laboratories at Chicago, of typical sections of wall 10 ft. x 11 ft. were so successful that there should be no trouble overcoming this difficulty.

The original investigations and later development of the system, (patented) were carried out by Mr. Emile G. Perrot, of the firm of Ballinger & Perrot, Architects and Engineers, Philadelphia, Pa. It has already found considerable favor and a large number of dwellings have been constructed by this method.

National Lime Association Holds Annual Meeting

The second annual meeting of the National Lime Association was held June 16-18 at the Hotel Astor, New York City.

The first day's session was devoted to the meeting of the Board of Directors.

At the second session, on June 17, various topics were discussed, including a review of the year's work of the National Lime Association and its aims and ideals; reports of Standing Committees on uniform cost accounting, trade practices and accident prevention and insurance; statistics of the lime industry and their place in business development; the new electrolytic lime treatment of sewage, and the use of lime in construction: the needs, problems and methods.

The discussion of the latter subject by Mr. T. B Shertzer, engineer, Eastern bureau of the association, was particularly interesting. Mr. Shertzer had recently returned from a 10,000-mile trip and gave his impressions, gathered therefrom, especially with reference to the use of lime in building construction. Because of the lateness of the hour, it was agreed to carry over the discussion of this topic until the following day.

Due to illness, President Charles Warner was unable to attend several of the sessions, but was sufficiently recovered to take the chair on June 18.

The subject relating to the regional bureau as an agency for effective association work was discussed June 18, as well as the matter of the advantage to the industry of well planned field work in the regional bureau, and several other topics.

The excellent attendence and interest of the members present indicate that the National Lime Association is a live and "going" concern.

Creosote Oils in Wood Preservation

LIGHT creosote oils properly injected into wood apparently will prevent decay until the wood wears out or until it checks so badly that the untreated portions are exposed. Such is the indication of service records collected by the Forest Products Laboratory on railway ties and telegraph poles preserved with low boiling creosotes. The ties so treated lasted from 15 to 20 years, and failure was traceable in most cases to mechanical wear, such as rail cutting and spike killing. In no case was failure found to be the fault of the preservative.

Of 1,558 telegraph poles in the Montgomery-New Orleans line, which were pressure treated with a light creosote oil, 1,049 poles were still sound after 16 years. In 91 per cent. of the cases of decay, the fungi had entered the wood through checks and shakes. Representative sections in the Norfolk-Washington line showed that after 17 years' service, of the 1,614 poles inspected, 1,469 were sound, 92 decayed at the top and 105 decayed at the ground line. The decay at the top was caused chiefly by cutting off the poles. In those decayed at the ground line, the causes of failure, as determined in 88 per cent. of the cases, were checks or shakes. Here again as in the tiles, the preservative outlasted the mechanical life of the wood.

Unless some other factor than protection from decay is considered important, therefore, there is apparently no need to specify high boiling oils. The important point is that any coal tar creosote which is not extremely low boiling or extremely high boiling will satisfactorily prevent decay, and in the selection of an oil, factors, such as price, penetrability and convenience in handling, should receive greater consideration than moderate differences in volatility.